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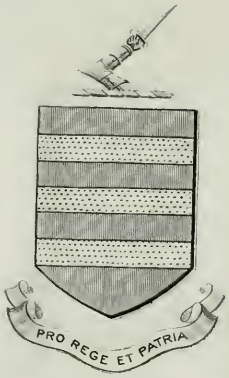

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This index contains in a single alphabetical sequence the names of authors and subjects of all articles published in THE MODERN HOSPITAL during the six months covered by this volume. The following abbreviations indicate special departments in which articles appeared: Bk. Rev., Book Reviews; Corr., Letters to the Editor; Ed., Editorials; Q. and A., Queries and Answers.

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The Modern Hospital

For the convenience of our readers and for ready reference the articles in each issue of The MODERN HOSPITAL are classified under a number of well-defined departments.

Original, signed articles are placed at the beginning of the magazine. Editorials are followed by miscellaneous articles, which do not logically fall in any of the departments.

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PROGRESS IN EQUIPMENT AND OPERATION
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HINTS TO HOSPITAL SUPERINTENDENTS

NEWS OF THE HOSPITALS AND SANATORIUMS

THE MODERN HOSPITAL

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THE ROYAL PRINCE ALFRED—A GREAT AUSTRALIAN HOSPITAL*

By WILLIAM EPPS, F.C.I.S., Secretary, Royal Prince Alfred Hospital, Sydney, N. S. W.

By foresight and large vision, the early promoters of the Royal Prince Alfred Hospital at Sydney provided ample opportunity for the development of the hospital as a clinical adjunct, as well as elaboration of its potentialities of serving a public which has continuously and handsomely responded to all of the hospital's appeals.

With the State as an active force in all financial considerations and with the public contributing in accordance with its individual abilities, the system of admission is worked out to accommodate exigencies of hospital management as well as to fill the requirements of the public. As many of the patients as are able, pay something.

ONE naturally has a little diffidence in writing about one's own hospital, but perhaps it is best to be frank, and from our own point of view the *mot du guet* is justified. We have, of course, only an Australian standard of comparison, but the writer has had the privilege of inspecting and analyzing the systems of both American and British hospitals, and it is his opinion, prejudice perhaps, that the Royal Prince Alfred Hospital in Sydney compares favorably with most of the best of these in its work, methods, organization; while its buildings, for the conditions of this climate, are admirable. It should be borne in mind that Sydney is a large city, with a population approaching a million, and that it is one of the great cities of the British Empire. It, therefore, needs a large hospital or hospitals, and of these it has several, the total bed accommodation of the metropolitan institutions being more than 2,000, of which the Royal Prince Alfred has the largest part. It is, however, typical of the hospitals of Sydney and Melbourne; and in a minor degree the hospitals of the other capital cities are of the same type.

In a way, the Royal Prince Alfred Hospital, in its beginnings and general system, illustrates the large hospitals of this continent. It was founded half a century ago as the result of a public movement to memorialize perpetually the satisfaction of the people at the recovery to health of Prince Alfred, a young brother of the late King Edward XII, of England, who was shot while visiting the city. A sum of about £30,000 ($150,000) was raised, and the promoters of the movement agreed that another hospital for Sydney would be the most suitable form for the memorial to take. As a result of much negotiation, it was ultimately decided that the hospital should be built as an adjunct to the Sydney University, on a large, historic, park-like area given by the State to that institution, between several of the colleges affiliated with it. The object of this union was to make it a clinical school to become a part of a medical school which should ultimately be instituted. One of the conditions of the transfer of the land was that the senate of the University equally with the board of directors, should have a voice in the appointment of the medical staffs, so that they might be fitted as teachers in the future, and that

*This article appears in two parts. The second part will be printed in the February issue of The Modern Hospital.

the hospital should make provision for the clinical teaching of students. This scheme was embodied in a State Act of Parliament which became the hospital charter. The hospital was thus destined before its birth to become a clinical school, and it is now the principal one attached to the medical school of the University, with some 300 students in various years of training attending its practice.

It was, of course, impossible to build a hospital suited for such a purpose with £30,000, and the promoters had to face a problem as to whether they should build a small complete hospital with their money, which would be of no use as a clinical school, or begin a big hospital. They comprised some men of large mind and great foresight, including Sir Alfred Roberts, a retired surgeon of great capacity, who during its earlier years was the genius of the institution. These men were willing to take the risk. The result is a hospital carefully organized from the outset as to its buildings and future work, with the ultimate aim of reaching 500-bed capacity, situated in a fine locality, surrounded with open spaces, yet close to a large industrial population. The Government of that day, fortunately, was impressed with the future need and potentialities of a hospital such as that proposed, and came to the help of the builders, with the result that during the years it has contributed handsomely to the cost, and between the public and the State there are now buildings erected which have cost approximately £400,000 (roughly, two million dollars), which very nearly fulfill all the needs of a hospital of this size. I say very nearly advisedly. There are, of course, other buildings needed. There is need, for example, for a new and complete out-patient and casualty department, capable of dealing with 100,000 out-patients a year; of an isolation block with 100 beds for incipient mental, septic, and infectious diseases (including incipient tuberculosis and venereal diseases), which should in part be a sort of clearing house for these cases prior to their departure for the special hospitals provided for them. These buildings are already projected and have been promised by the Government. A first step is to be immediately taken by the erection of a venereal block, the lower floor of which shall be an out-patient venereal department, capable of treating 1,000 out-patients at one time, with wards above for female cases and children suffering from these diseases.

Treatment of Venereal Disease Pioneer Step

In this matter of the treatment of venereal diseases as a part of the work of a general hospital, the Royal Prince Alfred has been the pioneer of Australian hospitals. Some fifteen or twenty years ago the board took over, with some doubts, a ward for twenty beds from the Sydney Hospital—then about to rebuild in part—which was devoted to female cases. These were then mostly of the prostitute variety, with some others among them, and they were at the outset fenced off from the other patients and made to feel their position as social pariahs. Consequently, they resented their segregation and created so much disturbance that the board, with great perspicacity, decided to remove all traces of differentiation between them and other cases, and to the surprise of many, there was no further trouble. Since then, up to a few years ago, these constituted the venereal element in the hospital, but latterly women were taken for out-patient treatment, also subsequently, at the request of the Government abroad, fifteen beds were opened for children with these diseases.

About five years ago a Labor Government came into power in the state. The first Minister for Health was appointed, who, with some good but crude ideas, wanted to do something to check the spread of this form of disease. He was especially anxious to establish night clinics for the treatment of both men and women, and asked the board to establish these as part of the hospital routine, so that the patients could come for treatment out of working hours. The Government, of course, offered to provide the means, and again, with some misgivings, the board tried to meet the minister's wishes. The result was that when the hospital was declared open at night for those suffering from syphilis and gonorrhea, the place was overwhelmed. As many as 1,000 patients attended at one time, and so great was the press that the thoroughfare looked as though it led to the races, and the police had to be brought in to keep order. This certainly showed the need for the system, but it was too much for the hospital to undertake with the restricted accommodation for its out-patient department and for its staff, and the board had, perforce, to limit the numbers to 400 patients at one time on the books. Other hospitals have since been asked to assist in the work and some have taken it up. Now Parliament has passed an act making notification of venereal disease to the authorities compulsory, with heavy penalties, and treatment by medical men compulsory; but as accommodation is not yet available in the hospitals for treatment on the broad scale of these cases, which is a *sine qua non*, the Government is proposing to erect a building in the hospital grounds as outlined above, and plans are drawn for it.

It should be explained here, perhaps, that in

this country the state is the dominant factor in our system of hospital finance. The voluntary system, as known in Great Britain, would be impossible here, as we have no great rich or aristocratic classes who, on the *noblesse oblige* principle, maintain hospitals. Great Britain and Australia have not American multi-millionaires to erect and endow their hospitals. The state has always accepted the partial maintenance of its hospitals as part of its functions, and in this state a system has been in force for many years under the Hospital Act by which the state contributes pound for pound (or dollar for dollar) on all amounts raised by hospitals from the public other than from patients for their maintenance. This hospital participates in this subsidization to a limit of £4,750 per annum—an arbitrary limit—but in addition, the state, recognizing that the maintenance of a great hospital is impossible on such a basis, even without limitations, contributes special subsidies to this hospital and to the Sydney Hospital, and maintains entirely another large hospital, which is for infectious and chronic cases rather than for acute medical and surgical cases. This method is satisfactory so long as the State has plenty of funds, and so long as it does not take control of the hospitals.

A front view of the Royal Prince Alfred Hospital shows the long buildings extending over several blocks of city area.

Under our Act of Incorporation, the management is in the hands of a board of directors of twenty-two, of whom two—the chancellor and dean of the faculty of medicine—represent the University; ten are Government nominees—generally men of position, including some medical men; ten are elected—five each alternate year—by the subscribers. The state is thus well represented on the board, but it rarely interferes either directly or through its representatives. The board has been progressive, economical, and business-like with the one purpose of safeguarding the interests of the state and the public. It has been contributing practically one-half the income needed. But, of course, changes are always possible—in fact, one is now predicted. The nationalization of health hospitals is a plank in the platform of the labor party, now in power in the state.

I am not proposing to discuss here our hospital system generally, and it may be of interest to your readers to know something of our financial methods. In this respect the Royal Prince Alfred may be regarded as typical of the larger hospitals, at least in this state. As has been explained, about 50 per cent of our income is from the state and about 15 per cent from public voluntary contributions and other sources, such as fees from visitors, the hospital auxiliary, shop, etc., the balance being from patients. It must be borne in mind, however, that unlike the majority of American public hospitals, this hospital has no private patients and is purely a public hospital, except for about ten one-bed wards, devoted to our own nurses, doctors, students, etc., and an occasional military or naval officer or clergyman. Our patients are all of the class who cannot afford to pay for private medical treatment. This, however, does not imply anything in the way of pauperism. The average Australian is a very independent person and would resent any such scheme. He expects to get attention, however, as a citizen, in a hospital supported by the state, to the maintenance of which he, as a taxpayer, indirectly contributes. If he has not the means to contribute something to the cost of the maintenance, he can get in without contributing anything. If he can contribute something, however, he is expected to do so, and, be it said, does it generally without demur. In fact, it appeals to his independence to do it. He considers, perhaps, when he contributes one or two dollars per week that he is paying for his medical attention, and such a consideration prevents him from feeling that he is a beggar receiving a dole.

Uniform Routine for Admissions

Our system of admission may have some interest for your readers. Every applicant for admission has to go through the same routine. Emergency, illness, or accident cases are admitted at all times without question, but patients not recommended by a medical man for admission (immediate or otherwise) have to appear at the hospital and see the admitting officer, who, if they have the proper qualifications as to their medical condition and their want of financial ability to pay outside, arranges for their admis-

sion. But before this proceeding, each patient has to answer to a special clerk, questions as to his position in life, to enable the admitting officer to determine his financial status. Practically the greater the financial inability of the patient, the greater his chances of admission, but once admitted, no discrimination whatever is made between patients, whether they pay nothing or say eight dollars a week. In fact, the financial basis of their admission does not appear upon their history sheets and is not known in the wards. Occasionally, of course, there are people who can afford to pay who try to evade their obligations, but we think this occurs very rarely. Possibly one-half of those patients who are admitted are recommended by medical men, who know their financial condition as well as the nature of their complaint. This practice acts as a safeguard.

Members of the Auxiliary conduct a very successful and inviting tea room.

Medical Staff Purely Honorary

The medical staff other than the resident medical staff, which numbers twenty-eight, is purely honorary, and consists of the professors of medicine, surgery, pathology, and pharmacology in the University, the lecturers in gynecology and eye diseases, clinical lecturers in medicine and surgery, and the demonstrator in physiology, together with other physicians, surgeons and specialists, totaling about sixty, who, as I have already explained, are appointed by a joint board, consisting of the senate of the University, sitting with the board of directors of the hospital. Nearly all these men are in practice and no doubt gain much in public esteem from their connection with the hospital, but they give it valuable services without charge, and naturally would, therefore, object to the admission of persons who could afford to pay them fees in practice. This, again, is a check on imposition.

Should there be any doubt as to the *bona fides* of applicants for admission, they are asked to sign the following declaration before a magistrate, viz.:

ROYAL PRINCE ALFRED HOSPITAL
SYDNEY, N. S. W.

APPLICATION FOR ADMISSION AS AN IN-PATIENT

(Also treatment as an out-patient)

Name .....
Address .....
Age..... Social Condition (Married or Single).....
Religion..... Native Place.....
How long resident in the State.....
Occupation (of husband where wife applying).....
Occupation of wife..... And earnings, if any.....
Where and when last employed.....
Weekly wages .....
Number of children..... Age of oldest and youngest.....
Earnings of children.....
House rent .....
Name of landlord.....
What other source of income, if any.....
Total income last six months.....
Club or benefit society..... What benefit.....
Life or accident insurance.....
Particulars of real or personal property.....
Estimated value .....
Funds possessed of.....
Reference .....
Remarks .....
In case of minors—
Name of father, mother, or guardian.....
Address .....
Occupation .....
Address of nearest friends (for communication).....

FORM OF DECLARATION

I .....
am an applicant at the Royal Prince Alfred Hospital, Sydney, and I do hereby solemnly and sincerely declare that I am unable to pay for outside medical attendance and that the answers given to the foregoing questions on this document are true in every particular; I make this solemn declaration, conscientiously believing the same to be true.

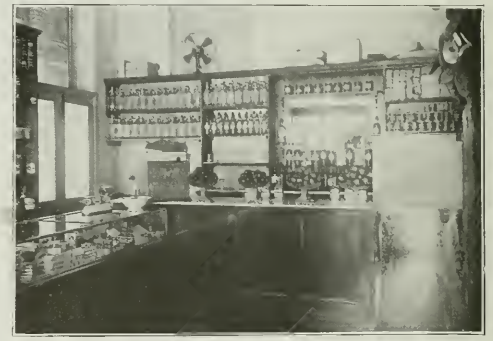
Made and subscribed at Camperdown, Sydney,.....
day of....., 19.....

Signature.....

Before me

Justice of the Peace.

As a result of this system, the hospital receives contributions from, or on behalf of, approximately two-thirds of the patients admitted, the balance being accident cases (for whom no payment is asked) and non-paying cases.



All the necessities of ordinary life can be purchased at the hospital shop.

In reviewing the consumption of whisky at Mount Sinai Hospital, New York City, a large decrease was found to have taken place in the last ten years. The amount consumed has gone down from almost one gallon per bed in 1910, to one-tenth of a gallon per bed in 1920. This is partly due, no doubt, to changes in therapeutic practice, to the greater care in handling supplies, and partly to the pressure of new laws.

TRUDEAU SANATORIUM CONSTRUCTS IDEAL COTTAGES

By SCOPES AND FEUSTMANN, Architects, Saranac Lake, N. Y.

FOR a period of about twenty-eight years, the usual method of housing patients at Trudeau Sanatorium has been in cottages which contain four bedrooms, a sitting room, and an ample porch for taking the outdoor rest-cure. The earlier cottages of this type contained no plumbing, bathrooms were added about 1896, as well as ventilated clothes closets. Still later, when outdoor sleeping was advocated by many specialists in pulmonary tuberculosis, two or more porches were provided, instead of one continuous porch, so that patients' beds could be moved easily and directly from their rooms to these several verandas, or outdoor sleeping quarters. The four room type in its latest development is shown in Fig. 1, being the floor plan of a cottage donated by Mr. Elias Asiel of New York. The bedrooms are contiguous to porches and have cross ventilation. The clothes closets have direct ventilation and light. The living room, bath, and toilet receive light and air from porches, as well as direct light from above. The corridor also has a ceiling light and direct ventilation.

The construction of this cottage was begun during the fall of 1916 and the total contract price, as entered into at that time, amounted to a little less than $8,000.00. To reproduce this structure today, it would be necessary to add at least 100 per cent to the cost. It was for this reason among others, that the directors of the Trudeau Sanatorium decided that the four room cottage had ceased to be an economical type, not only on account of the initial outlay per bed, but because the cost of the upkeep (each one of these cottages has a separate heating apparatus) had reached a point disproportionate to the number of persons housed. It was therefore determined that future cottages ought to contain more patients, even if it were necessary to resort to a two-story structure to accomplish this purpose.

The opportunity to inaugurate this new housing policy presented itself during the summer of 1919, when, under the terms of the will of the late Edward P. Kerbs of New York, the sanatorium came into possession of a considerable sum of money. About four-fifths of this sum was to be expended for the erection of two buildings to house patients, the size of the structures not being stipulated. The architects were thereupon instructed to prepare studies for two-story cottages, containing about ten patients' rooms. After a number of sketches had been made, a type was adopted which is shown in Fig. 2 and 3; these two cottages are now in course of erection. The plan embodies the salient features of the Asiel Cottage, and indeed of practically all of the cottages erected at Trudeau during the past eighteen years. Every room, even those of secondary importance, receives direct light and air. The corridors are sufficiently lighted and aired by means of a large window on the stair landing. The sleeping porches are quite private, as the entrance porch is to be used for lounging or day-rest only. It should also be pointed out that these new units have been designed to do something more than to provide housing for ambulant patients, for it is intended that they should supplement the functions of the present twelve-bed infirmary, when the increase in the number of patients at the sanatorium makes such a step necessary. A nurse's room, with bath and sleeping porch, has been provided on the first floor; there is also a small pantry near the entrance, where trays can be made up and special diets prepared, so that patients, who

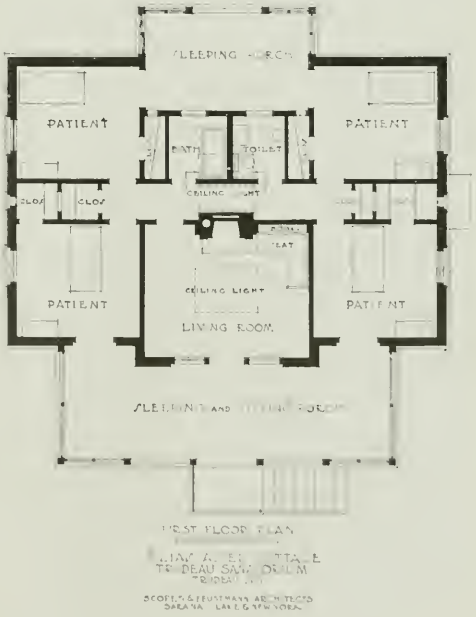


Fig. 1. First floor plan of the Elias Asiel Cottage.

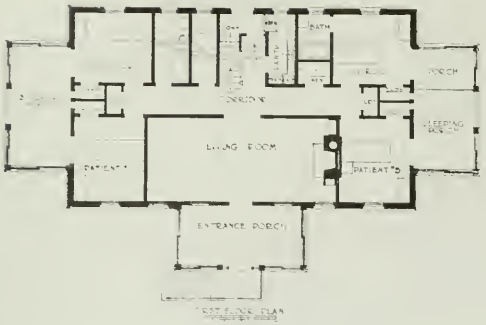


Fig. 2. First floor plan of the Kerbs Memorial Cottage.

are not able to go to the main dining room for their meals, may be adequately cared for in these cottages. An annunciator system will be installed with push buttons in all patients' bath and toilet rooms.

Advantage is taken of the fact that these cottages are placed fairly close to each other (fifty-five feet being the least distance between them) to install for the two cottages one hot water heating plant, and one heater and tank for domestic hot water. These heating units are placed in a high cellar under patient's room No. 3 in cottage No. 1 which occupies lower ground than cottage No. 2. The necessary flow and return pipes, also circulating pipes between the cottages, will be placed in insulated conduits about four feet below grade. It is confidently expected that this method will materially decrease the amount of attendance required for heating purposes.

The construction of the Kerbs Cottages is about the same as has been employed for practically all of the four patient cottages at Trudeau during the past years. The foundation and underpinning are of rubble masonry, the superstructure of frame, with outer walls veneered with brick. This mode of enclosing has been found to be less expensive than solid brick walls, while the insulating quality of the combination of brick and frame has been found to be higher. The roofs are double and will be covered with slate. The interiors are to be treated simply, and the domestic character of the various rooms will be carried out as far as can be consistently done with this type of housing.

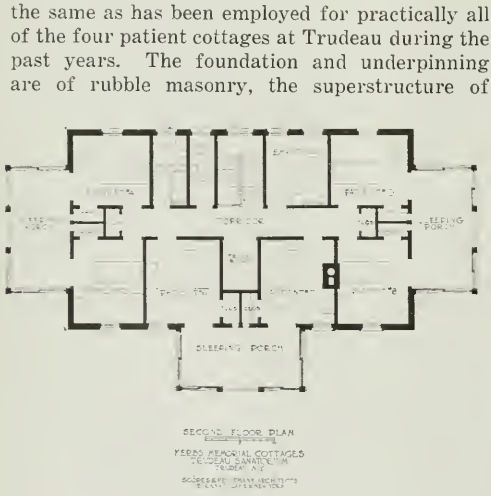


Fig. 3. Second floor plan of the Kerbs Memorial Cottage.

In as much as it has not been possible to contract for all portions of the work, the exact cost of these new units has not yet been ascertained, but it is believed that it will amount to about $29,000.00 for each cottage, exclusive of furnishings.

THE COMPOSITE NURSE

In his address at the Florence Nightingale Centenary Celebration, held under the auspices of the American Red Cross at Central High School, Washington, D. C., May 13, 1920, Sir Auckland Geddes, who himself is a physician and therefore speaks as a member of the profession as well as a representative of a great political and social world, described most aptly the mental picture which the word nurse always brings to his mind. A woman, always she is, "rather above medium height, with a somewhat broad face, round cheeks with a glow of health, a rather short nose, good teeth, grey eyes, hair concealed by a white linen cap of sorts, hands rather broad and with the appearance of being much in hot water, feet at least one size larger than is usual in a woman of her height, shoes low heeled and rather out of shape. That is not a picture of any nurse that I ever saw, just the average impression left by the hundreds, perhaps thousands, of times I have watched nurses at work. Round that central figure there are dozens of memories of individual nurses ready to slip into the place of the type nurse if my mind wanders in the fields of recollection.

"Now let me see what are the qualities of this ideal creature. She is competent, neat with her hands, rather unemotional, little inclined to sentimentality, rather short in her way with humbugs but extraordinarily patient and tender with the really sick, brave in times of danger, self-possessed and calm (bombed hospitals showed all that), forgetful of self and fatigue while work has to be done (who that served in France can forget the casualty clearing station nurses when the wounded were pouring in from a heavy action?), cheerful under the most wearing discomfort, rather inclined to gossip, a bit of a hero worshiper (have you ever heard an operating theater nurse on her favorite surgeon?), not very intellectual but extraordinarily observant, prone to talk shop at all times but highly amusing on the foibles of her patients, full of esprit de corps, full of sterling virtues, and, when all is said and done, often the savior of lives for the saving of which the physician got the credit. Without expert nursing, half—no, three-quarters—of the practical value of the scientific knowledge of the medical profession would be lost."

God has so arranged the chronometry of our spirits that there shall be thousands of silent moments between the striking hours.—Dr. Martineau.

AN EFFICIENT SYSTEM OF ACCOUNTING FOR THE HOSPITAL OF MEDIUM SIZE

By GEORGE A. PARKER, M.D., Medical Director and Superintendent, Butterworth Hospital, Grand Rapids, Mich.

In a hospital of one hundred to one hundred and fifty beds which does not employ a large number of clerks or bookkeepers, it is especially important to have a thoroughly efficient system of accounting.

This article suggests the main features of a system which has stood the test of practical experience. It includes the buying of all supplies by the superintendent, the use of special requisition slips for all repair work and the issuance of monthly reports. No argument is needed to support the demand for a good accounting system in every hospital, but the cost of supporting such a system should in every instance be in direct proportion to the amount saved.

IN THE following article it is not the intention of the writer to attempt to describe anything markedly different from the more or less established system of accounting for hospitals, but rather to show how much may be accomplished in an institution of 100 to 150 beds, which for financial or other reasons does not employ a considerable force of clerks or bookkeepers.

To begin with, all supplies are bought by the superintendent. With the exception of certain daily orders which are bought locally, the following procedure is used. Requisitions are made out in duplicate and turned in to his office, by the heads of the different departments requesting materials, and, if approved, a numbered purchase order is issued in duplicate, describing the article, stating the price, and such other terms of the purchase as may be included, signed by the superintendent. One copy of the order is forwarded to the firm from whom the purchase is to be made, and the other retained and filed. In hospitals having a central storeroom in charge of a clerk, these purchase orders may be made in triplicate.

Special Slips for Repair Work

Repair work is always recorded on special requisition slips, which, in addition to the request and description of the work desired, have a space reserved to tabulate the cost in both time and materials used. These repair slips are arranged in a form based on those described in a paper entitled, "The Segregation of Power Plant Costs," by D. D. Kimball of New York, and Dr. H. M. Pollock of the Massachusetts Homeopathic Hospital, which appears in the report of the 1919 Convention of the American Hospital Association. Inasmuch as a storeroom clerk is not employed, the heads of the different departments are held responsible for the proper checking of invoices consigned to their departments, distribution of supplies in their charge, and in addition a perpetual inventory is kept, which of course shows the amount of stock on hand.

In the main office one clerk acts in the dual capacity of bookkeeper and cashier, and is therefore responsible for the collection of bills, the management of the cash receipts, and the necessary bookkeeping, which is carried on in double entry. In the "day book," cash receipts, and expenditures from petty cash are recorded. Accounts receivable are handled as follows: upon admission of the patient an account is opened up on a card, which on one side gives certain statistical data, and on the reverse, shows charges which are entered as they are incurred, together with any cash payments or credits. These cards are of course filed alphabetically, and are further arranged in "open" and "closed" accounts. These accounts are transferred from the cards to the "cash journal," which shows both a credit and debit side. From the cash journal, totals are posted to the ledger, which shows accounts receivable, bills payable, and the value of inventory or stock on hand. The capital or corporation accounts should appear in a separate set of books, which may or may not be kept in the institution office. When the income from invested funds, contributions, and miscellaneous sources, other than those from operation, is comparatively small, and does not require much separate work, the corporation accounts including receipts, expenditures, valuation of buildings, plant, and equipment, may be kept in the same set of books that carry the operating accounts. As a principle, however, this latter procedure would not generally be upheld.

Approved bills payable, which are entered in the voucher register, charged to the departments for which the expense is incurred, appear in the journal as cash disbursements, and are posted therefrom to the ledger. In computing hospital accounts, new equipment, improvements to build-

ings or grounds, insurance, and interest on loans are not included in the maintenance cost, though they are figured in the total cost under the head of corporation accounts. Replacements and repairs are, however, charged to maintenance of patients, and included in the estimation of the per capita cost.

Reports from Superintendent's Office

Reports are rendered by the superintendent's office for each month giving the following data: administration expense, professional care of patients, food department, housekeeping, laundry, house and property expense, and the total expense. In addition to the above, the cost per hospital days in each of these subdivisions or departments is given.

Appended to this is a statement of earnings from operation, which is divided, showing from which department in the hospital the earnings are made. On another sheet is shown a summary of the total expense to date, value of inventory, corporation expense, operating expense, average cost per day, accounts receivable, cash receipts and a few other items of interest to the particular hospital concerned.

With the exception of a part of the pay roll, which is distributed in cash, and some payments from the petty cash account, all bills are settled by a voucher check, signed by the treasurer of the board, and the superintendent, certifying that the account has been incurred for the benefit of the hospital.

In conclusion, no argument is necessary to support the demand for a comprehensive accounting system in all departments of a hospital. The cost of supporting such a system, however, should be in direct proportion to the needs of the institution, and not in excess of the amount that it actually saves.

THE MACHINERY OF THE HOSPITAL LAUNDRY*

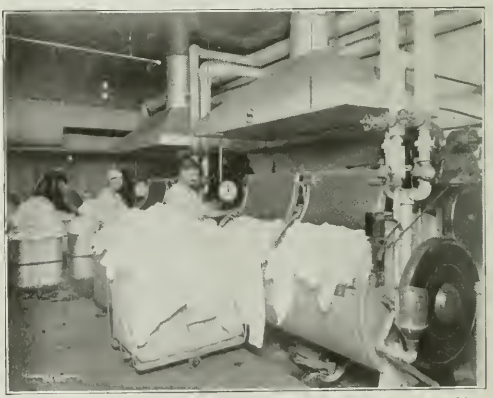
By WALTER TRIMBLE, Chicago, Illinois

IT IS a business axiom, that "All inefficiency begins at the top." In other words, no department of a concern will be more efficient than the chief executive of that concern. I quote this because a hospital is, or should be, a business proposition in the very strictest sense of the word, striving for efficiency in every department—including its laundry.

The efficient head of a hospital will see that he has a proficient manager at the head of his laundry department. Besides being a laundry operator, he should have a good working knowledge of both chemical and mechanical engineering, and he should be an expert in selecting and handling his labor, most of which is female. It is no position for a man of the "rough-and-ready" type, but one which should be occupied by a born diplomat. It is hardly necessary to say that in addition to all this, the laundry manager must be absolutely honest, and have the respect and confidence of those above him, as well as of those under him.

Hospital Laundry Machinery

What will be said about machinery at this time will be intended not for the laundry manager, but for the general information of those members of the hospital's executive staff who may not be altogether familiar with laundry equipment. With one or two exceptions which will be pointed out later, hospital laundry machinery is the same as is used in the commercial laundry. The machinery of a power laundry is both complex and varied, as to type. In a hospital, the power plant is nearly always independent of the laundry, so it is not within my province to discuss it. However, it is an important adjunct, as the laundry must have plenty of steam at the right pressure, and water at the right temperature, in order to operate as it should; and of course the power must be constant. The hospital management must see that the en-



(Underwood and Underwood.)

Fig. 1—Large Metallic Washing Machine.

This is driven by a direct-connected motor. The large hood above the machine catches the steam and heat that arise and this is sucked up by an exhaust fan.

*This is the third of a series of articles on the Hospital Laundry. The first and second articles appeared in the November and December issues.

gineer does his duty, as usually he is not under the jurisdiction of the laundry manager.

Strictly speaking, the work of laundering begins with the washing, although this process may be preceded by sterilizing, marking, and classifying the goods. But in order to avoid confusion, it is best to pass over these subjects for the present, and begin with the equipment of the washroom.

The Washing Machines

All laundry washing machines operate on one principle, although their constructional details vary in a great many ways, and their sizes and capacities also differ. The power washing machine consists of a cylindrical water-tight outer shell, in which revolves forward and back a perforated cylinder. The fabrics to be cleansed are

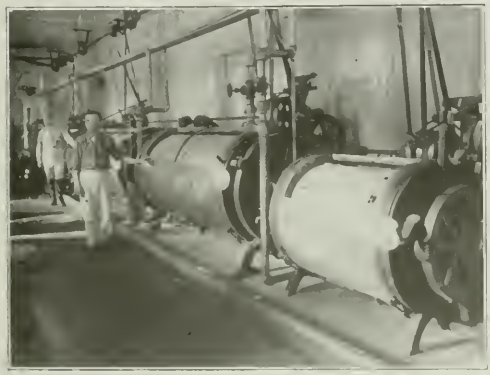


Fig. 2—Wooden-shell Washing Machines.
These machines are belt-driven. They have no steam lines leading to them, so they draw their hot water supply from a large storage tank, of the closed type.

placed in the latter, and the bath enters through the perforations and saturates the goods. The washing is done by agitation, not by rubbing. Fig. 1 shows a large all-metal washing machine, which is driven by a direct-connected electric motor, the "panel-control" system being used—a very ingenious method, which will be illustrated later. These metallic washers, of which there are several makes, are of comparatively recent development, and they offer several advantages which the wooden washers do not possess. They are very expensive, it is true, but the matter of cost is offset by their long life, their rapidity, their ability to do the work of three or four ordinary machines, and the excellence of the work they do.

Fig. 2 shows a row of wooden-shell washing machines, which are the kind quite generally used at present, although in many plants they are gradually being superceded by the all-metal machines. These washers have one excellent new feature,—they are equipped with ball bearings,

Fig. 3—Large Over-driven Extractors.
These huge motor-driven machines have a large capacity and they are very efficient where there is a large volume of work. There are no belts to give trouble, which is an advantage.

which effects a saving in power consumed, a matter that is of no little importance where the cost of fuel or electric current is high. These two pictures will give the lay reader a good idea as to the washing machine and its construction. The washing processes used and the materials which enter them will be discussed when we come to the matter of methods.

The Extractor

After the "load" of goods has been washed, the excess water is removed by an extractor (called by the English a centrifuge), which has superceded the old-fashioned rubber-roll clothes wringer. All extractors are similar in principle, although they differ in constructional details and size. There is an outer shell, made of metal, in which revolves at a very high rate of speed a perforated basket, made of brass or copper. The wet pieces are transferred from the washer to this machine, and nearly all of the water in them is thrown out by centrifugal force.

Fig. 3 shows a line of over-driven extractors. These are large-capacity machines, for use in very large flat work departments, and in other cases where a large load must be handled. They are electrically operated, the motor being at the top of the vertical shaft which extends through the basket.

Fig. 4 shows a line of under-driven extractors, with individual motor drive. In these machines the baskets have no upper bearings, as have the over-driven type, and therefore spin on a bottom bearing, after the manner of a top. In this picture is also shown a washing machine, behind the man. The little box-like machine in the lower right-hand corner of the illustration is a dampening machine. By means of air pressure, water is made into a fine mist, and when a

Fig. 4—Row of Under-driven Extractors.
These extractors are motor-driven, but they are not direct-connected. This view shows a section of the starched-work department of a very large hospital laundry.

starched garment is dipped into this, it comes out dampened and ready to be ironed. It will be noted that the women are dressed in overalls—a very good plan where there is moving machinery.

After the washing and extracting, flat work is ironed, without either being starched or dried. Other articles are either dried in a heated dryroom or in a heated tumbler. These machines will be described in my next article.

* * * *

Questions and Answers

"Is it right to bleach in the suds?—Kentucky."

No. The best chemists disapprove of bleaching in the suds. While many laundry operators do not at this time agree with the laundry chemists, the more advanced thinkers now admit that the scientific men are right.

"What causes my flat work to take on a grayish color?—Indiana."

Fig. 5—Section of a well lighted laundry with ample working space.

It is impossible to determine this unless you send a sample of the goods. It is very probable that lime soap is the cause, as you are located in a hard-water section. A hot acetic bath will remove the lime soap, but unless you install a water softener the trouble will recur.

"How can one remove blood stains?—M. J. M."

I presume you refer to old blood stains, because recent blood stains are removed in the ordinary washing process. If the stain has been "boiled in," try javelle water. If this will not take it out, try a prolonged treatment with strong ammonia, followed by an oxalic acid bath. Be sure to rinse thoroughly. Sometimes medicine stains are mistaken for blood stains, and consequently they are given the wrong treatment.

RATES OF COMPENSATION SATISFACTORY

Comment has been very favorable to the new medical and surgical fee schedule, in operation since June 1 in Ohio, and the hospital schedule effective a month later, both under the Workmen's Compensation Law. More adequate provision for medical services is stipulated in the new schedule, and cooperation with those who have claims against the State industrial Commission is being readily accomplished.

The new rates of compensation to hospitals, which were decided on in agreement between the Industrial Commission and the Ohio Hospital Association at their annual conference in Columbus recently, are based on the operating cost per day for the last calendar year. The Commission requested all hospitals to submit full data, including annual reports, and at the same time send them a copy of the new plans and a request to make out blank contracts which were to be properly filled in, certified, and returned. Hospitals failing to do this will have to be satisfied with awards for service not in excess of $14 per week for ward service and $18 per week for private room service, without remuneration for any extras. Since operating room service, hospital anesthetists, drugs, laboratory or x-ray services are figured in the per diem cost per patient, they are not to be filed as additional charges.

COURTESY COSTS LITTLE

What are the greatest hospital assets today? Everyone would disagree on some points, but there are some on which perhaps we could all agree. First, there is courtesy and cheerfulness. Have the switchboard operator answer all inquiries politely, accurately, and circumspectly, for she does not know who it is on the other end of the line. Have the records for outgoing information up to date and simply arranged. Be careful not to have conflicting reports given out, if you wish to retain the public confidence. To insure accuracy of information, detail certain people, only, to give it. Treat all entrants of the hospital politely, no matter what their standing or business may be. In the wards, in addition to the quiet and order which of course are essential, try to foster a spirit of friendliness among all patients and workers. Fight the hospital's differences behind soundproof walls and closed doors. Make it understood that it is not necessary to shout at the foreign born; he does not understand any better. Try to gain the good will of everyone, and learn to regulate your power.

HOSPITAL ORGANIZATION WITH SPECIAL REFERENCE TO THE MACHINERY OF GOVERNMENT

By WILLIAM EVERETT MUSGRAVE, M.D., Director, University of California Hospitals, San Francisco, Cal.

Hospital organization has the same fundamental principles as business organization. Any discussion of organization, however, must specify the type of hospital under consideration as problems vary to no small degree with the different types.

This article deals with the ideal general hospital, which should be organized "to supply all the facilities and render all the complex services required by modern medicine." The hazards of its work are great, and its material very precious. It is a great public utility, whose work must be as free from error as it is possible to make it, and whose constant watchword must be love of service — practical everyday idealism.

THE fundamental principles of hospital organization are essentially those of good business organization of any other kind. There are varieties in function, and other compelling influences that must be recognized, often to a degree that makes each hospital an individual problem. Any discussion of the subject of organization, therefore, should specify the type of hospital under consideration and must perforce disregard the many unusual situations peculiar to local communities.

This paper deals with the ideal complete general hospital, which I defined in a recent article as: "The minimum requirements for a modern hospital are that it shall be located, constructed, equipped, organized, financed, and personneled, to supply all the facilities and render all the complex services required by modern medicine, including physical, social and mental ills; and at the same time to furnish the facilities for training new workers in all the special fields covered by its activities.

"The modern hospital is a great public utility, the combined school and workshop of modern medicine; a community health center in all that the name implies.

"As a workshop, it uses the most precious material, employs the greatest variety of implements, and calls for the services of master craftsmen of many specialties. The hazards are great, every day is twenty-four hours long and service must be as free from error as it is possible to make it. Love of service—practical everyday idealism—must be the constant watchword in every hospital, and dividends paid in soul satisfaction must be prized as of great wealth."

Stockholders

In conceiving and planning a new hospital or in reorganizing one already in existence, the first effort is to focus all interests upon the creation and perpetuation of its governing body. These interests may be religious, fraternal, state, university, community, or private. Frequently they represent several different influences and sometimes they are political. In most private plants, the owners or investors are stockholders, as would be the case in any other business. Whatever they are, there must be enough organization to insure careful selection and perpetuation of a good board of directors, or trustees, or both, and to maintain a healthy body of friends for the institution. The owners, stockholders, or other group of interests behind the hospital should hold one or two meetings a year to fill vacancies on the board of directors, hear reports, and stimulate their own interest in the progress of their work.

Board of Directors or Trustees

A legislative policy, and general governing board of seven or nine members, or a somewhat larger body with an executive committee of three or five members, is the foundation upon which good organization must rest. The personnel of this board should be made up of outstanding citizens who command the respect of the community, take a keen interest in civic matters, take their responsibilities seriously, discharge their duties faithfully, and are not sectarian in the general aspect of that word. No member of the staff or other physician in active practice should be a member, but medically trained men not engaged in practice often are most valuable directors. Political, social, religious, and even financial affiliations should be carefully considered before appointments are made, and no one whose selfish interests are involved (except in private hospitals) should be appointed. Generally speaking, boards should not be self perpetuating, and on the other hand, provision to safeguard the electorate should be made.

Methods of selection must depend somewhat upon the interests fostering the hospital, which may be the regents of a university, the trustees of

a foundation, state or municipal officials, the governing body of a church, the managers of some supporting society or corporation, the stockholders in a private hospital, or the general public, in a community service institution. Wherever possible, selection should conform as closely as may be to election by stockholders, owners, or representatives.

If the hospital is a community institution supported by the public, it is an easy matter to incorporate upon a non-profit-making plan. Contributions may be expressed in non-dividend bearing stock certificates of a fixed par value. This not only provides an attractive way to raise funds, but it establishes a definite and safe electorate for a board of directors.

Organization of the Board

The organization and duties of a board of directors approximate those of other sound businesses. The usual officers and committees are to be provided. Committees should not be too many in number, their membership should not exceed three to five persons, and their duties should be outlined. All committees, except the executive, should be advisory in character, both to the board and to the chief executive officer. No greater danger can be created in any hospital, than for its board to have numerous committees with executive power, discharging managerial duties. This point ought to be stressed because of its prevalence, and because of the injury it works in so many otherwise good institutions.

The auditor for the corporation should be a non-voting member of the board, or at least should be in attendance at all meetings. He should have authority to conduct irregular or "running" audit, in addition to a required complete semi-annual report on the financial situation.

The distinction between accounting and auditing should be kept clear at all times, accounting being definitely a managerial function. One of the most difficult situations encountered in hospital organization, and particularly in reorganization work, curiously enough, is in separating these two entirely different functions.

The attorney—and every hospital should have a good one—should be a non-voting member of the board and attend all its meetings. The importance of the attorney's work and the multiplicity of his problems are increasing very rapidly in hospitals. This is due to many causes, such as the constantly increasing complexity of hospital functions, the increase in the use of dangerous special utilities, the development of general and special laws governing the practice of medicine, particularly those tending toward socialization, the greater knowledge on the part of the public, not only as to what constitutes their legal rights, but a knowledge of whether or not these rights are being properly safeguarded, and the tightening of legislation in the interest of better medicine.

The treasurer of the corporation may be a member of the board, or at least should attend its meetings and make his reports to them. A responsible officer of a bank makes a highly desirable treasurer, and his institution may be made trustee or custodian of all funds and financial papers.

The managing director, director, or superintendent of the hospital should be a non-voting member of the board, and its executive officer.

The financial duties and responsibilities of the board are custodial, ways and means, operative and educational. The custodial function includes all realty, endowments, bequests, trust funds, and all other assets of whatever character. In many hospitals this responsibility is divided with a separate board of trustees, a mistake, for so many reasons that time will not be taken to discuss the point, further than to say that the divided responsibility may prove troublesome. It is more or less immaterial what name is given to the board, but except for special reasons harmony and efficiency are more often secured when there is only one authoritative body. This function also includes purchase, sale, mortgage, expansion, building, repairs, and upkeep. Ideas regarding hospital construction are constantly changing, and directors find it difficult to hold to a sound developmental program which must be part of their policy. For this and many other reasons, an architect should be an element in every board organization. In planning a new hospital he should be selected carefully, selected early, and consulted with frequency. In reorganizing an existing hospital the appointment of an architect should be arranged for. It takes three types of expert service to construct or remodel a hospital. These are authoritative representation from the board, the architect, and the hospital administrator. In many instances the building of a hospital is made possible by society interests, and frequently these are carried into the plans. Medical economics is a specialty which must be recognized more generally than it is at present, before we can be made to stop building architectural frills and inefficiency monstrosities, and labeling them hospitals.

The Boards Most Difficult Problem

The ways and means duties of the board constitute its most difficult problem. It includes securing endowments, bequests, and the raising of funds of whatever character, for whatever purpose, and laying down policies governing their expenditure. Most hospitals are "under financed and over expended." Many of them are bankrupt,

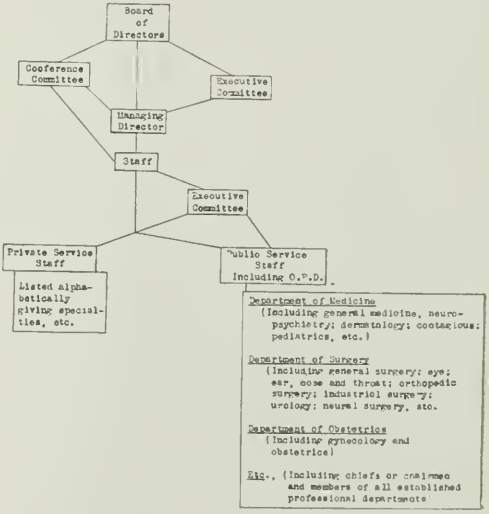
and in the majority the funds are pathetically inadequate to meet the legitimate costs of the service they attempt to render. The result is desperate attempts to save, even where saving is at the expense of efficiency, with all the demoralizing effects in appearance, spirit of service, and criticism entailed in such a situation. The time is not far distant when the public will not submit to hospital conditions that give even healthy people the impression of a cheap rusty hotel, with its bad odors, frayed rugs, scratched walls, rickety furniture and general run down appearance. Boards of directors should not permit a hospital to attempt more work than their finances will justify being well done. It is their duty—their first and most important duty—to raise funds sufficient to carry out their approved program. If this is not possible, they should adjust the program to meet their finances, even if it involves closing of the hospital.

Policies regarding both operating costs and operating income are distinctly board functions. The execution of the policies, however, is just as distinctly a managerial function. Overzealousness by board or committees, and their usurpation of managerial duties is responsible for the bad name and inefficient management of a great many hospitals. An experienced administrator will not, of course, submit to such an invasion of his prerogatives, and therefore hospitals operating under such a policy can secure only a "rubber stamp" kind of an executive. This point is worth stressing, because it is both a prevalent situation and one difficult to correct.

Unfortunately even in our great medical teaching centers much education must be carried out among governing bodies before they will appreciate either their full duties toward their hospitals, or the hospitals' correct relation to their other educational departments. Until this is done, until directors of more educational centers can be brought to visualize their hospitals as educational departments, whose officers are teachers of a medical specialty, training more of their kind, and whose governing authorities are as actively interested in developing the hospital as they are in any other laboratory, the outlook for rapid improvement in hospitals in general is not particularly bright. Fortunately, some of the leading institutions are awake to the importance of this situation, and they soon will be turning out the vanguard of the new order of hospital executive, just as they years ago took the lead in turning out the modern diagnostician and physician. At the same time they will be creating the literature and setting the example of what hospital boards of directors should be. Even laymen are rapidly becoming educated to realize that medical education is not "pure science," that research does not necessarily mean test tubes and guinea pigs, and that the art of medicine, medical economics, and above all "service," itself, are parts of both the educational and research fields. These are promising fields that are about to be discovered again.

The appointment function of a board of directors is important both in what to do and what not to do. The selection of a director or superintendent is exclusively a prerogative of the board. Chairmen or chiefs of staff departments should be appointed by them upon nomination of the executive committee of the staff. All other staff members should be nominated by the chairmen of departments, approved by the staff or its executive committee, and appointed by the board. All other officers and employes should be appointed or employed by the director of the hospital.

DIAGRAM OF STAFF ORGANIZATION


Board of Directors
Cooference Committee
Executive Committee
Managing Director
Staff
Executive Committee
Private Service Staff
Listed alphabetically giving specialties, etc.
Public Service Staff Including O.P.D.
Department of Medicine
(Including general medicine, neuropsychiatry; dermatology; contagious; pediatrics, etc.)
Department of Surgery
(Including general surgery; eye; ear, nose and throat; orthopedic surgery; industrial surgery; urology; neural surgery, etc.
Department of Obstetrics
(Including gynecology and obstetrics)
Etc., (Including chiefs or chairmen and members of all established professional departments

Legislative and general policy functions should be built up by written resolutions of the board, until an established line of conduct has been provided for most of the very numerous problems of policy with which every hospital is confronted. Such resolutions should be given publicity as issued, and when complete enough, they may be published along with other rules and essential data as a handbook of the hospital. The board should not concern itself with rules and regulations of internal management, these belong in the province of the director. More general questions, covering any or all departments, and particularly those having contact with other organizations or the public, should have the board's attention.

Contact policies with other institutions and or-

organizations are a difficult, and, at the same time, an important function of a governing board. These agencies are of every conceivable variety in function, organization, management, and finance. All of those worth while, and whose field belongs in better health, should work with or through the hospital, either in an understanding spirit of cooperation or by affiliation. Our definition of a hospital cannot be fulfilled by intramural work, however efficient, and no really worth while hospital can discharge its full duty without an extensive plan of cooperation with other health agencies. To bring this about requires a broad understanding among board members, and tireless energy and tact by the board, staff, and all other officers.

Hospital Has Educational Function

The board of every good hospital should recognize an educational function. Responsibilities in the development of interns, nurses, technicians of several varieties, social workers, public health nurses, hospital executives, and even in assistance to younger members of the visiting staff, are important duties which should be fostered in every possible way by the governing body. In our great teaching hospitals attached to, or forming part of the machinery of medical education, this function is equally important with that of undergraduate medical instruction. Except in a very few of our leading and progressive centers, this fact has not been fully appreciated and programed along with other essential features of education. It is distressing to see in this day of enlightenment teaching hospitals developing in the minds of future physicians only an ultra "test tube" kind of science, to be practiced on "cases," neglecting the great art of healing, and the teaching that improvement in service among God's stricken creatures is the most uncultivated and promising field of research in all the broad program of medicine.

Our teaching hospitals train future physicians to rely upon fine laboratories, x-ray plants, and other expensive facilities, and upon the expert assistance of specially trained executives, technicians, nurses, etc., as part of their armamentarium in diagnosis and therapy. Is it any wonder that so many of them fail when they get away from this expert assistance and expensive equipment, and come into contact with the world as it is? Is it not obvious that, if we are right in training physicians to recognize expert assistance as a necessity, it is our duty to educate these assistants in the only place in which they can be educated—the teaching hospital? Certainly but very few of our teaching hospitals are discharging a full duty in this respect. They are bidding against each other in many technical fields, in order to secure the services of the comparatively few well trained executives and trained technical assistants, while the great majority of hospitals must do without them. This condition will be corrected only when more governing bodies of teaching hospitals recognize their responsibilities toward their hospitals as part of their teaching machinery, instead of considering them expensive nuisances.

Hospital Committees

The number and variety of auxiliary boards and committees is essentially a board problem. Some are advisable, and possibly a few necessary, not so much for the working of the hospital as for establishing cooperative contact with other agencies and with the general public, and thus increasing the usefulness of the hospital. All such committees should be advisory in character, and the personnel should be scrutinized with the same care that is employed in selecting board members.

A woman's auxiliary board working with a tactful director, can be a remarkable asset to a hospital. Certain of the institution's activities are well delegated to such a board and there are social and other internal questions where their counsel and help is of the greatest value. The president of an auxiliary should be a member of the board of directors. Mistakes in the personnel of an auxiliary can cause much harm, and election to membership should, therefore, be made with dignity and after mature deliberation.

An executive committee of not more than five members and with the usual duties and authority of executive committees should be part of the board's organization.

The necessity for other standing committees varies with the scope and program of the hospital. As a matter of policy, the fewer the committees the more successful the organization. In the very nature of good organization and system the president can appoint special committees to consider special matters as they come up. All committee reports should be in writing. Certain necessary contact or "bridging" committees are discussed below under staff organization.

The Hospital Executive

By whatever title—managing director, director, manager, superintendent, or what not—the chief executive is the most important factor in any enterprise, whether organized for hospital, social, or business purposes. One of the troubles in many hospitals is the tendency to engage as "superintendent" some inexperienced person, or one who has made a failure in some other line of work and must be "taken care of." Frequently these "superintendents" are paid a pittance and as-

signed the duties and responsibilities of a clerk, while the hospital shakes itself to pieces under the "management" of a board, with a host of committees that meet semi-occasionally, and usually know little or nothing about hospital problems.

Success as a hospital administrator is dependent upon the same qualities that insure success as an executive in any other field, plus some special attainments in the peculiarities of hospital work. These qualities are appropriate general and special education, experience, an inexhaustible fund of tact and patience, unusual sense of relative values, tireless industry, enthusiasm, a clear judgment of things as they are, and a vision of things as they ought to be. The ideal hospital executive has both a medical and a business education. There are some splendid men, who have won national reputation in the work, who are not physicians, but there can be no question but that medical training adds to the value of any hospital executive, and for the great teaching centers such training is necessary. In non-teaching, semi-commercial, and certain types of special hospitals, a medical training is less requisite, and in the smaller plants it usually is out of the question for financial reasons. Neither medical education, nor business training, nor both in combination, can prepare one for hospital work. There must be a certain personality, and a considerable apprenticeship must be served with leaders actually engaged in hospital work on a large scale.

The director should be selected and appointed by the board of directors. He should be their mouthpiece in all matters, and of course should be solely responsible to them. He should attend all meetings of the board and of all important committees. He should not be engaged under "contract," nor should there be any "security of tenure," except that assured by his successful work.

Duties of the Executive

The duties of a hospital administrator cover a very wide range of activities, and he must have a working knowledge of each of them. The chiefs of departments and services should meet frequently with the executive in conference, and each of them should have free access to him at all times. In smaller hospitals this is easy of accomplishment, and it is even easy for the administrator to keep in personal touch with all the details of every department. In larger plants, however, most of the detailed work must be left in the hands of trusted assistants, while the chief executive gives his time to conferences, consideration of policies, and to harmonizing, coordinating, and stimulating the work of all departments. Roughly speaking, the director may divide his attention between administrative, public utility, professional, teaching, and research activities within his own organization, and have plenty of his time and interest centered in methods of contact with other health and welfare organizations, and with the public interest in all sorts of health questions.

Administrative Problems Varied

The administrative problems are of great variety—purchasing, property, supplies, power plants, heat, light, water, ventilation, alterations, repairs, new construction, plumbing, painting, laundry, kitchens, diet kitchens, insurance, rents, interest, accounting, records, office work in general, banking, financing, nursing, housekeeping, and dozens of other activities, all of importance in hospital success.

Of public utility problems there may be mentioned operating rooms, x-ray plants, radium, clinical, pathological, and other laboratories, electrocardiographic, mechanical, and other modern difficult and expensive parts of diagnosis and treatment.

The problems of the professional department and staff require constant, sympathetic, intelligent interest and support. Staff organizations do not hold together without effort, and the best work is done by staffs, interested in and practicing team-work. Conferences with staff organizations, boards, and committees, require a great deal of time and thought. It is all necessary and worth while, because continued advancement and progress may be had only as all interests go forward together, and the hospital as a whole is just as good as its weakest department.

The wise administrator will interest himself in all public movements, having better health as part of their program, and he will make an earnest effort to work in close cooperation with all such movements. Perhaps in a greater degree than other persons, the hospital executive sees the waste that goes on about us all the time by the inefficiency, overlapping, and what not, of "organizations," "interested" in various phases of the better health program. He sees these things from near at hand, and it requires no little tact and judgment to establish and maintain the right contact with them all.

The Staff

A carefully selected, organized, team-working staff is a fundamental requirement of any hospital, and at the same time the one least frequently seen. A loosely appointed "paper" staff holding indifferent, infrequent meetings constitutes a dangerous situation—dangerous alike to the staff, the hospital, the patients, and to the cause of better

medicine. It is easily avoided in new organizations, and extremely difficult to correct in reorganization of old institutions.

Nominations to the staff may be made or approved by the staff or its executive committee, but all appointments must be made by the board of directors. Obviously, only physicians of ability, integrity, industry, and deep interest in better medicine should be made staff members. Hospitals must get away from a custom all too prevalent under which staff members are selected more upon grounds of social, political, or public popularity, than upon those of professional merit. Staffs consisting in a political combination between the physicians and the hospital, based upon mutual exchange of patronage, have no place in the better hospital and better medicine movement.

Every staff member in a good hospital is an active working officer of the institution. There must be mutual interest and responsibility, based upon mutual confidence and loyalty. There should be an agreement that records shall be kept, unnecessary surgery avoided, accidents and other hazards reduced to a minimum, laboratory, x-ray, and other diagnostic and therapeutic facilities used to their greatest advantage, the simplest of successful remedies employed, and methods and procedures standardized as far as feasible. They should agree that assistants, interns, nurses, and employes be trained in efficient economical practice; incompetency, charlatanism, and cultism be combated by all legitimate means, and the humanities, art, and idealism of medicine be promulgated for the better care of the sick and an influence for better health in the community.

The "Open" Versus the "Closed" Staff

The "open staff" versus the "closed staff" for hospitals always has been a difficult problem, and with the better hospital movement well under way, is receiving an extra amount of discussion at the present time. Also, a part of the discussion is the question of "limited" versus "unlimited" staff membership. The unlimited "open staff" hospital has been more appropriately named a "hotel for the sick," where both the physicians and patients are guests. The "open" staff usually includes "farming out" of x-ray, laboratory, and other important utilities. There usually is an *a la carte* atmosphere about these hospitals, and, earnest efforts for the constant improvement of medicine are not featured. The only real reason why a staff should be any more "open" than the kitchen or the office, or why it should not be restricted to the necessary number of good physicians to make its work well rounded, is because no worthy physician should be denied hospital facilities, and all physicians should have equal opportunity in the use of these facilities. In large cities with many good hospitals this is not so serious a problem, but in smaller towns with one or a few hospitals it becomes a problem of the first magnitude.

Possible Solution of the Problem

The League for the Conservation of Public Health, in its hospital service work now being actively conducted in all parts of California, has adopted a program which gives to each hospital the advantages of a "closed" institution without denying any worthy physician a place on the staff. Explanation of this system is shown in the following copy of a staff organization and staff appointment blank of a San Francisco hospital.

STAFF ORGANIZATION OF HOSPITAL

Exclusive of emeritus members and consulting staff, there are two classes of staff members of ..... Hospital:

The Private Service Staff:

1. Any physician who is acceptable to the executive committee of the staff and the board of directors of ..... Hospital may be appointed a member of the private service staff.
2. Members of this staff share all the privileges and responsibilities of any other staff member, *as applied to their private patients.*
3. It is expected that members of this service will conform to the requirements set by the national and state organizations aiming at hospital standardization, and will conform to all policies and regulations of the hospital.
4. Admission of patients to ..... Hospital is limited to its staff. Physicians not on the staff may be extended the courtesy of the hospital, by the superintendent, pending consideration of their applications for membership on the staff.

The Public Service Staff:

1. This staff is constituted to care for all hospital, clinic, and teaching patients who have no private physician, and who are unable to pay a private physician for his services.
2. This staff is divided into appropriate divisions, departments or services. Each division will have its chairman, members, and assistants, and other elements of a staff organization.
3. Members of this staff, as in the case of the private service staff, are nominated by the executive committee of the staff and elected by the board of directors of .....Hospital.
4. A physician may be a member of either or both staffs.

The form of staff appointment is as follows: "Reposing confidence in the integrity, professional attainments and practices of Dr. ....., he is hereby appointed a member of the private service) or (public service) staff of said .....Hospital, for a period of one year.

"It is understood and agreed by the parties concerned that this appointment carries with it mutual responsibilities and obligations in all movements for better hospitals and better medicine. Actions taken by the hospital in furtherance of this plan shall be mutually binding upon all departments and persons connected with the hospital."

Under this arrangement, the physician interested principally in his private patients has, for this purpose, the same standing that any other staff member has.

The public service staff handles all clinic and all charity and other part paying and teaching patients. This staff must have one or more members representing each specialty of medicine, including anesthesia, pathology, clinical microscopy, and röntgenology; divided along the usual lines of cleavage between specialties. This staff must act as a team-working group, handling efficiently, within its own membership and within the walls of the hospital, all the complex problems of diagnosis and treatment. Most clinic and public service staffs actually do practice "group medicine," which is one of the reasons why the poor undoubtedly get better care in most hospitals than do patients who are able to pay. "Group medicine" is expanding so rapidly in the private practice of medicine that the new problems dependent upon such work already are demanding the serious attention of hospital administrators.

Organization Important for the Staff

Organization will prove not only useful to the staff in its own work, but will insure proper contact with the board of directors, the executive, other departments, and with the public. The organization should consist of the usual officers and committees. There should be stated meetings, with some provision to insure attendance as a duty. The entire staff should meet at least once a month, and the "public service" staff should meet more often. In large teaching institutions weekly department meetings of the public service and teaching staff should be the rule. The hospital should make provision for all meetings and the director should be present. Meetings frequently are made more attractive and interesting, and better attendance assured, by having in the hospital a staff luncheon-club. This club should have a conference room for the entire staff, and one or two smaller rooms for committees. There should be arrangements and service for luncheon, for which a nominal charge may be made. It is desirable to have the clinical record department adjacent to these club rooms. When this is not feasible, records requiring attention of staff members may be kept in classified files in the club, so that a busy member of the staff may give them the required attention with a minimum of inconvenience.

The staff should have an executive committee with pretty broad powers to speak and act for the entire body. A suitable membership would be the chairmen of the major "public service" staff departments, and one or two elected members from the "private service" staff. The director should attend all meetings and may be a member of the committee.

Satisfactory contact between the staff and managerial departments requires thoughtful planning and liberality in execution. Not infrequently disharmony is caused by a feeling on the part of the staff that they have too little voice in many matters, while on the other hand the board of directors, may feel that staff members are over ambitious for administrative authority. The basic principle which must obtain is that the board of directors, being charged by custom and law with full responsibility, must in the end have final authority in all matters. However, the wise board will follow as far as possible the wishes of the staff in all medical matters, and will offer careful and tactful explanations when this is not possible. It frequently is difficult for a staff to agree among themselves and stay agreed upon important questions of policy or of details, and consequently it often requires time to get specific wishes, representing united medical opinion, before a board of directors. A conference committee is of distinct value in this, as well as for proper handling of the many questions of mutual interest and importance to the staff and the governing body. Such a committee may very well form one of the standing committees of any hospital. Its membership may well be *ex officio* the combined executive committees of the board and the staff.

Further consideration of the subject of this paper leads at this point to discussion of the organization, contact relations, duties and responsibilities of the some fifteen to twenty major functional departments required to operate a complete general hospital. Adequate discussion of these departments would require several additional articles.

REPORT ON NURSING EDUCATION

In October, 1919, under the auspices of the Rockefeller Foundation, a Committee on Nursing Education was organized, under the chairmanship of Prof. C. E. A. Winslow. The committee was asked to study and report on education for public health nursing. Its scope was later extended to include a broader study of nursing education in general, including training for private duty nursing, and institutional teaching and administrative positions. The committee now consists of eighteen persons representing physicians, nurses, and lay persons identified with public health work. During the past year two lines of study have been pursued: first, the study of public health nursing, activities carried on by nurses and by persons other than nurses, with a view to judging the caliber of the work, and the training best fitted to prepare for it; and second, the study of the training afforded by hospital training schools, and by graduate courses for public health nursing. In both fields it has of course been necessary to make a representative and intensive rather than a broad study. Typical communities, rural, small town, and city, have been reported on, and the training schools of representative institutions have been chosen for observation. The final judgment of the committee will be based on an analysis of all the facts, gathered from the various fields of nursing.

THE HOSPITAL SHIP "RELIEF"

By R. C. HOLCOMB, Commander, (MC), U. S. N., United States Navy Yard, Philadelphia, Pa.

THE *Relief* is a hospital ship of approximately 10,000 tons displacement, 483 feet in length and 60 feet in breadth. She draws about 19 feet of water, is of twin screw type, an oil burner, having turbine engines, and is completely equipped as a fleet hospital and medical supply depot.

There are nine deck levels, six of which are wholly above the water line. Were these decks on the same plane they would constitute a building one-half mile long, and some sixty feet wide.

Being an oil burner she is free from the dirt and dust which is incident to coaling ship. Her fuel capacity is large, much more than sufficient to steam across the Atlantic and back. Her total fresh water capacity is more than 800 tons. She has sixty-four water tight compartments so that she is practically unsinkable, as this term is applied to ships.

Her decks are wide and spacious, and have room for 146 swinging cots. Her extreme hospital capacity for sick in the wards and rooms is five-hundred beds. She thus takes rank among the largest metropolitan hospitals, in fact, there are only about thirty-one hospitals in the United States of five hundred or more beds.

In addition to her hospital capacity, she carries in her hold a complete brigade hospital equipment consisting of tentage, beds, medical and surgical supplies, and even including motor ambulances. This would make it possible in case of an epidemic in the fleet or the landing of a naval brigade, as occurred in connection with the Vera Cruz incident, to establish a base hospital or auxiliary hospital to meet the emergency.

Need for a Hospital Ship

An idea of the use of a fleet hospital ship may perhaps be better understood if one will imagine the fleet as a large municipality afloat, consisting of from thirty thousand to sixty thousand souls living on an unsteady platform, moving from climate to climate, amid the constant hazard of machinery. Here she takes the place of the metropolitan hospital, ready with a trained staff to care for any type of morbidity or injury, encountered in any part of the globe. She likewise acts as a fleet medical supply depot, filling emergency requisitions for medical or surgical supplies, and offering an out-patient service for cooperative diagnosis and treatment, to the medical officers of the fleet who desire the assistance of her laboratories. She also offers an x-ray department, and another for the treatment of the eye, ear, nose and throat. Each battleship is furnished with a fine medical department which will meet all the demands of average morbidity, and this the hospital ship in no way supplants; nor does she take the place of the splendid shore hospitals of the Navy which, with the grounds for convalescents, and free from other repressions of the sea, fill a place in the treatment of the sick to which the hospital ship can never aspire. But as a unit of the fleet organization, of that great mobile, and floating city of fighting men, she is capable of moving with them, taking a place as a fleet auxiliary, as do the colliers, the supply ships, repair ships, etc., and in this capacity she tends to make the fleet more self sustaining. Provided with an up-to-date and complete equipment, she gives assurance that, by virtue of his occupation, no seaman shall be deprived of the advantages of medical care and treatment enjoyed by his brother on shore.

Plan of the Ship

In the hospital department there are fourteen wards, and fifteen officers' rooms. Four of these wards which are arranged for treatment of contagious disease, are well aft on a superstructure, and can only be reached by elevator. This makes them truly isolated, and, as a ship at anchor usually rides bow to the wind, this group will always be to the leeward of the rest of the ship. Each ward has its toilet, and a spacious deck outside. The pantries are fitted with an electric range, utensil sterilizer, and other modern pantry equipment. From the contagious department there is a chute to the loading room of the disinfectors, of which a battery of two is provided. There is also provided a disrobing room, shower and bath room, and dressing room, where patients may be prepared for discharge. The main hospital department is in the midship section of the ship, where there should be the least motion. Each ward has its group of toilets, washrooms, bath and showers, linen room, pantry, and quiet room. The berths are arranged so that they may be double banked or single banked. When single banked the mattress is thirty-two inches above the floor, thus bringing the patient to a comfortable working distance. The wards are metal sheathed on all sides and ceiled with full rounded corners of a six-inch radius at all coves, thus permitting ease in cleaning.

Each ward has three systems of lighting. All berths being in the fore and aft position, with

head in direction of shear, as they should be on a ship, the ceiling lights are all placed so that they will light the fore and aft and athwartship aisles, with a screen forward so that the light will not shine in the eyes of the patient in the forward berth. This ceiling light is not a light of high brilliancy. At each berth there is a portable comfort or utility light. This light may be used by the medical officer or nurse to examine a throat or do a dressing, or for any bedside utility where a portable light is needed. The standing lights or night lights are placed low so that they will not be a disturbing factor, and at the toilets a screened flood light is installed to show the location of the door. The wards on the main and second decks are nine feet high, which is two feet higher than one finds on the average ship, but not sufficiently high to permit of a method of indirect lighting.

Ventilating System

Every effort is made to secure the maximum amount of natural ventilation and illumination. The ports are of large square design each having a smaller round sea port mounted in it. These ports are designed so that they may be fixed open in such a position that they will act as a wind scoop as the ship rides to the wind. On the inboard side of the ward there are windows, each having three sash openings into the passage. This passage is pierced by a hatch or a shaft, as the elevator shaft, which acts as an uptake for natural ventilation in the same manner that the flue of a stove would act. Each ward also has an artificial supply and exhaust ventilation system. In winter the air is taken in through ventilators by large electric multivane fans. In the blower rooms the air passes through thermotanks, where it is heated and humidified, then travels through insulated ducts to the wards. It is not discharged through louvers directly on the patients, as is the custom in the usual ship, but is brought down between frame spaces and behind sheathing, and discharged about ten inches above the deck, the object being to deliver air below the level of the berths. The exhaust ventilation is on the opposite side of the ward and at the upper deck level. A ship is not like a habitation on shore, as the fresh air comes in from the roof as it were, and not from the cellar. The method of placing intakes and exhausts was not only developed with due consideration of air exchange in winter, but also in the tropics, or in rough weather when battened down at sea.

Furnishing and Arrangement of Wards

Each patient in the ward has a locker for his clothing, and at each berth there is a bedside stool which attaches to the bed rail and serves as a bedside table. This stool is of the design suggested by Commander E. M. Blackwell (MC), United States Navy, whose interest and ingenuity in all matters pertaining to hospital ships deserves special mention. The wards are so arranged that they do not serve as a passage.

A view of the floating hospital, the *U. S. S. Relief*, which can accompany our fleet around the world.

Where a hatch passes through a ward, the hatch is trunked so that access will not be through the ward, yet the ship was so well planned, that it was necessary to trunk but one hatch.

Passage About the Ship

The second deck is the main undercover passage through the ship. There are three elevators and four lifts, all of which, excepting the elevator to the contagious disease department, may be reached from the second deck. The main utility rooms like the hydrotherapy rooms, endoscopic room, x-ray room, laboratory, operating rooms, etc., are all arranged along this deck or adjacent to the elevator, so that a patient may be brought down by elevator from an upper deck aft, routed along the second deck to the forward elevator, and up to the x-ray room on the main deck or to special rooms on upper or superstructure decks. In this way they do not have to go out doors. In fact the problem of patient access, by wheeled stretcher, about the ship was one that had to have considerable consideration. There were water tight doors to pass through necessitating ramps; shear had to be considered in all fore and aft doors; camber had to be considered in outboard aisles and through athwartship doors; tile for instance, on board ship has to be laid on the deck and held in place by coaming or bounding angle two and one-half inches above the contigous deck, all of which has made the problem of wheeled access difficult, particularly where two paths of access approached at right angles.

Patients may be received aboard either by a specially designed patient handling apparatus, operated by drums and quadrant gear, somewhat on the principle of a Welin boat davit, or they may be brought from a boat up the gangway. The gangway has large platforms sufficiently roomy to accommodate a stretcher with stretchermen on either side. It is not necessary to carry the man all the way to the main deck, as there is a platform and large cargo doors on the second deck level, entering directly into the ward passage, from whence the patient may be transported to the decks above by elevator. On both port and starboard sides of this entrance are small operating rooms for reception of emergency cases, as well as for use as dressing rooms. Here a patient may be received, and cleaned up or examined, before going to the ward.

The Operating Rooms

The main operating group is on the upper deck, convenient to the elevators. It consists of a sterilizing room, scrub-up room, etherizing room, instrument room, and an operating room, all grouped about a small lobby in such a manner that they are practically equidistant, and each one may be entered without passing through any of the others. The sterilizing room may be entered without entering the rest of the group, so that boxes of sterilized dressings may easily be obtained for other rooms on the ship. There is a passage between it and the officers' rooms adjacent to the group, so that the occupants will not be annoyed with the heat which is generated there. It is also separated from the operating room by the scrub-up room, and yet there is direct access to it from the operating room through the lobby. The scrub-up room and etherizing room are directly adjacent across the lobby so that if desired the patient may be at all times directly under the surgeon's observation. The operating room is two decks in height, or fourteen feet from floor to ceiling. North light cannot be selected. There are 105 fixed ports in this room, the light being admitted from four directions. The natural illumination area is equal to one quarter of the floor area. The 105 ports assure practically a no-shadow-light. On either side, the light is admitted at two angles, one thirty degrees, the other about sixty degrees, so that either side of the deck may be elected for perineal or laparotomy work, whichever side is out of the sun. The sunlight is controlled by casement shades. The room is completely sheathed with metal, presenting a smooth surface with full glass sashes. In the space between the sash and ports there are two shades, one of translucent white, for cutting out sunlight, and one of heavy pantasote for preventing escape of light from the operating room at night, which might interfere with navigation from the bridge.

Lighting and Heating of the Room

The artificial illumination of the room is accomplished by eight ceiling lights and two ceiling fixtures of no shadow type. These fixtures had to have specially designed ceiling supports to allow for ship's movement and vibration. There is an auxiliary storage battery circuit for this operating room as well as for the other operating rooms. Should anything happen to the ship's lighting circuit, by means of a relay, the current would automatically shift to the storage batteries. A red light would signal that there was trouble and that the main lighting circuit was in need of attention. The photometric value of the light at the working level has been carefully estimated. The room is finished in white with a high dado of neutral grey mat surface to cut down the glare. No air is blown into the room. The air enters the lobby and four other rooms, and finds its way into the operating room by any one of four doors as may be elected. Heating is provided by five radiators,

wide column type, mounted off the deck on bulkhead brackets. These radiators are so mounted that sterile sheets may be draped over them. Many methods of heating were considered but this simple method finally adopted, after conducting a number of experiments on the bacteriological content of air as influenced by forced air currents. The exhaust ventilation is so arranged that it may be operated from the top of the room in summer, or from the bottom of the room in winter. Only two ports into the room can be opened. This group of rooms has its own ventilating set, and there are special provisions to keep the air from any part of the ship from entering these rooms.

The Out-patient Group

The out-patient rooms are on the main deck convenient to gangways and elevators. This group consists of a dental department, an eye, ear, nose and throat department, and a laboratory and x-ray department. The dental department is equipped with two dental chairs, and all necessary equipment for taking dental films, together with laboratory equipment for prosthetic undertakings. This department is always busy with out-patient work. The throat and nose department consists of a sound-proof room for ear testing, which is also fitted for eye examination. There are two completely equipped treatment booths and a small operating room. All the departments of out-patient work offer to the medical officers of the fleet the facilities of cooperative diagnosis and treatment. The laboratory with its equipment offers facilities for Wassermann and other technical examinations of the blood, excretions, and tissues. In connection with the laboratory department there is an animal house, autopsy or embalming room, a large mortuary, and a media room, which is fitted up for carrying media, vaccines, and serums, as well as other products which are properly preserved by cold. The media room and mortuary are separate from the rest of the cold storage vaults, being located in the hold. The main cold storage vaults for food are on the first and second platform decks. They are all reached by elevator.

The X-Ray Department

The x-ray department consists of the x-ray laboratory, the x-ray study room, and the photographic dark room. The x-ray laboratory contains an equipment for all kinds of modern radiographic work, such as steroscopic tables for horizontal or vertical work, horizontal or vertical radioscopy, and high frequency treatments. The x-ray study room is fitted for filing plates, and for examination by means of steroscope or illuminated light bank. Though the walls of the x-ray room are of steel, three of the sides are lead-lined to safeguard against the influence of x-light on drugs, chemicals, etc., stored in the dispensary or laboratory which are near. The equipment in the x-ray room is so arranged that the machine may be operated either from within a lead-lined booth, or from any point in the room.

The photographic dark room is not contigous to the x-ray room, but is a room in the cold storage department aft. It was placed there because it would not be economical to locate a dark room not requiring natural illumination, on an upper deck; and also because a dark room close to the source of x-light would be an unsafe place to keep the large number of plates which a hospital ship must carry. Plates will quickly deteriorate if not kept cool. The average ship's dark room, closed up to exclude the light, is one of the hottest places imaginable when in the tropics and as it is always necessary to make trips to the cold storage department to ice developer, it was therefore decided to make the dark room a part of the cold storage department, cool it to sixty-five degrees Fahrenheit, and store and develop the plates here under the most favorable conditions. The high humidity which is encountered here was considered the lesser of the necessary evils and appropriate safe guards against this were planned.

On the second deck adjacent to the hospital group are located such rooms as the endoscopic room, the acute treatment room, (which is a room specially equipped for treating venereal disease), and the hydrotherapeutic and thermotherapeutic departments. The acute treatment room is designed to reduce the danger of accidental infection, to the minimum. So far as practicable sinks are pedal operated, the hands being dried by an electric hand drier. The hydriatic division is equipped with needle spray the various douches, as well as continuous immersion tub. All these are operated from a control table. This department is also provided with shampoo table, various types of baking apparatus, and electric light cabinet.

Post Office and Canteen

On the second deck near the mess rooms are the ship's post office and canteen. At the canteen there is on sale, at a reasonable price, all the standard toilet articles, confectionery, shaving equipment, tooth brushes, paste, etc. This is the ship's post office and canteen. At the canteen there for the welfare fund. On the main deck is located the recreation room, with a piano, phonograph, and even a moving picture machine.

The Commissary department consists of a butcher shop, storerooms for wet and dry provisions, and a large cold storage plant with separate

rooms for meats, fish, butter, fruit, vegetables, etc. On the main deck are located the ship's and officer's galleys with general mess issue room, potato peeling room, bakery, and bread room. On the second deck is located the diet kitchen for the preparation of special meals. In this kitchen is located the mechanical cow for preparing the milk and cream for the sick, also the electric ice cream freezers. From the galleys the food is routed by electric dumb waiter, or by truck, to the mess halls, where crew and convalescents are fed by cafeteria system. The containers are so designed and planned that food is handled but once. It is placed in a container in the galley, which fits into the transportation truck, and then in a compartment in the steam table. Every man being his own waiter, so to speak, quick service and hot food are assured. For ward service, a special carriage is designed which will hold the standard Navy food container and here again the cafeteria system is employed. As the bed patient cannot go to the cafeteria, the cafeteria goes to him. By this method food has the minimum of handling, and the bed patient is insured warm food, which is not possible when trays are prepared in the ward pantry, and have to await hand carriage into the ward.

Baggage Room

A patient delivered at the hospital ship is accompanied by all his belongings. His bed and bedding come in a hammock roll, his clothing in a bag, and his personal trinkets, letters, etc., come in a ditty box. Of course these things cannot go to the wards. An electric lift takes them to a baggage room on the first or second platform deck, which has stands of racks consisting of cubby holes for stowing bags, hammocks, etc. Here they are securely stored. When the man is able to be about he can go to his bag each day at the hour designated, and obtain such things as he needs, which may be kept in his ward locker. Every effort is made to guard the belongings of the sick.

Laundry Department

The laundry department consists of an equipment of washers, extractors, tumbler and drawer pull driers, a flat work ironer, tandem universal presses with puff ironers, body ironer, and ironing boards. The laundry proper connects with a group of three rooms, the sorting room; the linen repair room which is fitted with bins, and such equipment as electric sewing machines, and electric marking machines; and the linen stacks which extend the full width of the ship. Suitable laundry baskets are provided for distribution of clean linen, which go by electric lift to the second deck and thence by truck and elevator to the various wards, linen rooms, or any of the upper decks.

So far as possible the hospital sections are located in the part of the ship which will be coolest in summer, and which will have the least motion at sea. The wards are free of steam pipes, which in tropics give off "wild" heat to the compartments they pass through. No ward for acutely sick is used as a passage to any other compartment. The wards have fresh water, and circulating hot and refrigerated water always on tap.

The ship carries five power boats in addition to having ordinary life boat equipment. Two of the power boats are thirty-six foot ambulance boats of a special design for transporting stretcher cases.

The *Relief* is the first naval hospital ship to be built from the keel up for hospital purposes. In 1910 the General Board of the Navy recommended that such a ship be included in the building program, but it was not until 1916 that Congress appropriated $2,500,000 for her construction. Her keel was laid July, 1917, or early in the war, but little work was done upon her until the spring of 1919. The cost of labor and material steadily increased in the meantime so as to double the cost at the date of appropriation. As a constituent part of the fleet it is hoped that her efficiency will steadily increase, and that her life as a hospital ship will be long and honorable.

BULLETIN GIVES FORMULA FOR INDELIBLE INK

The American Hospital Association, in its twenty-fifth bulletin, gives the formula for the compounding of the indelible ink for use in sterilization tests, which it recommended in Bulletin No. 21.

Ink for Sterilization Tests—Writes red—black after sterilization:

℞

Argent. Nit.	Oz. I
Potass. Bitart.	Oz. I
Liq. Ammon Fort.	Oz. IV
Succh. Alba	Drams II
Powd. Acacia	Drams II
Analine Magenta	Drams ss

Misc.

GETTING A BACKGROUND

In an article in The Institutional Quarterly, published by the Department of Public Welfare of the State of Illinois, on social service and the Chicago State Hospital; its development and progress, Dr. Edward A. Foley, assistant superintendent, urges that in cases where patients are brought to an institution by relatives or sheriffs from outside districts, some member of the social service department interview the one delivering the patient. A great deal of helpful information could be obtained in this way concerning the social history of the patient, the manner in which his family lives, whether the mental atmosphere is peaceful or disturbing, whether any of the members of the family are in need of help, and many other similar matters.

PRINCIPLES OF HOSPITAL ORGANIZATION*

By MICHAEL M. DAVIS, JR., Ph.D., in Charge of the Study of Hospitals and Dispensaries of the Cleveland Hospital and Health Survey

THE final governing authority of the hospital should be a board of trustees. No member of the board should be a member of the active or consultant medical staff of the hospital. Hospitals which are under a religious, or public, city, or Federal organization and which therefore cannot have trustees, should appoint an advisory committee similarly constituted. In addition to the men members of the board of trustees who represent chiefly financial, administrative and broad public interests and experience it is of much importance that there be included on the board of trustees a representative of some institution of higher education, viz: university, normal college, and women members whose experience and interest can be relied upon to contribute constructive ideas and opinions.

2. The appointment of the medical staff should be vested in the board of trustees. All members of the staff, chiefs of services, or assistants should be appointed by the board for terms of one year renewable by the board. The nomination should be made on the initiative of the board of trustees, or of the medical staff, or of an executive committee of the medical staff. The board of trustees should consult with the superintendent, or chief executive officer, before confirming the nomination of a medical staff, or of individual members thereof.

3. The superintendent of the hospital should be appointed by the board. He should have entire administrative authority over all departments of the hospital. Under the rules and regulations adopted by the board of trustees, the superintendent of the hospital should have authority to nominate or appoint all heads of departments, and employes. This implies the authority for discharge or dismissal of any employe for cause. The superintendent should be the representative of the trustees in relation to the staff or outside interests.

4. The medical staff should be definitely organized for the promotion of team work, common policies and satisfactory relations with the administration of the hospital. Regular meetings of the medical staff or sections thereof should take place for the discussion of professional work. For guidance in organizing such professional conferences the recommendations of the American College of Surgeons are called to the attention of the medical staffs of hospitals. The staff should be organized into divisions or services, medical, surgical, etc. It is desirable that there be a recognized chief for each division.

5. There should be a medical executive committee composed of members of the medical staff, selected by the medical staff, or by the board of trustees on the nomination of the medical staff. The superintendent of the hospital should be a member of this committee. The total membership of the committee should not be so large as to be unwieldly. Seven members is generally the maximum desirable.

(a) The members of the medical executive committee should include the chiefs or representatives of the division of medicine and surgery, one or more representatives of the specialties, and a representative from the assistants or junior members of the staff.

6. Provision should be made in the by-laws of the hospital for the recognition of physicians, not members of the staff, whose practice in the hospital complies with definite hospital standards. It is recommended that these physicians organize into an auxiliary staff, without service or voting power, and that a delegate or delegates from this staff be recognized by the trustees and attending staff as their representative.

7. It is recommended that the board of trustees of a hospital arrange for periodical conferences of designated representatives of the trustees with the medical executive committee, the superintendent, and the administrative officers, such as the heads of the training school or nurses' service, and the social service department. This joint group should meet periodically for the discussion of hospital policies or administrative matters.

8. The staff of the dispensary or outpatient department should be appointed according to the principles above laid down, and the physicians serving in the dispensary should receive definite recognition as members of the hospital organization and staff. For each department of the dispensary there should be designated a chief of clinic, who should be under the general authority of the chief of the corresponding department of the hospital, but who should be directly consulted by the superintendent or the assistant superintendent who is in charge of the dispensary on all matters affecting the dispensary. The chiefs of the dispensary service should constitute a dis-

*Prepared in cooperation with Haven Emerson, M.D., Director of the Survey, and Warren L. Babcock, M.D., Consultant in Hospital Administration for the Survey.

This summary of Principles of Hospital Organization appears in the Survey report, now published by the Cleveland Hospital Council, 308 Anisfield Building, Cleveland, Ohio.

pensary medical committee which, with the superintendent, the assistant executive in charge of the dispensary, and such others as may be designated, should meet from time to time on dispensary matters. It is suggested that a representative of the dipsensary staff be a member of the medical executive committee.

9. The medical staff of the hospital, acting through the medical executive committee and the superintendent, should formulate a definite set of standards, subject to ratification by the trustees, for all professional work of physicians in the hospital touching such matters as attendance, the making and supervision of records, diagnosis, use of laboratories, x-ray and other diagnostic aids, the duties of residents and interns, the inter-relation of staff physicians and outside physicians, the matter of fee-splitting, etc.

10. Physicians, not members of the hospital staff, should be entitled to send to the hospital, and to treat therein, private cases in rooms or wards, subject, however, to such limitation as to number of beds to be alloted to outside physicians, as may be formally made by the trustees, and provided that the physicians treating such cases conform to all standards made by the medical committee.

11. No physician should receive a fee from patients other than such fees as may be permitted to staff physicians, nor should any physician receive a fee from a patient unless the charges for the hospital care have been met, according to the rate established for various rooms or wards for members of the staff and outside physicians alike.

12. In such hospitals as may still continue to keep a training school as part of the hospital organization, there should be appointed by the board of trustees a training school committee composed of both men and women, to direct educational policies. This committee should include representatives of the board of trustees, with other persons known to have had experience in education, and also members of the alumnae of the nurses' training school. The superintendent of the hospital, and the director of the training school in the hospital, and representatives of the medical staff selected by the medical executive committee, though not members of the training school committee, should sit with the committee.

Among the Catholic hospitals, or in hospitals administered under a religious organization, which have no boards of trustees and are subject to the direction of the bishop of the diocese, a committee on the training school, advisory to the bishop, might with advantage be established to direct the educational policies of the training school.

The relationship between schools of nursing and hospitals should be essentially the same as that created between medical schools and hospitals. The school of nursing, like the medical school, should exist primarily to give technical education to students who are to obtain part of their training in the wards of hospitals.

An ideal organization for a school of nursing which should be realized in Cleveland as soon as circumstances permit is clearly the university organization, in which ward training would be given in such hospitals as come up to the conditions required by the university for its students.

13. The superintendent of nurses in the hospital should be appointed by the board of trustees, on nomination of the superintendent, with the concurrence of the training school committee. She should have administrative authority, subject to the superintendent, over the entire nursing service, and she should be responsible for the educational standards and policies as laid down by the training school committee. It is considered desirable that the superintendent of the hospital should delegate to the superintendent of the training school the appointment and dismissal of nursing personnel.

The offices of principal of the training school and superintendent of nurses, being respectively educational and administrative offices, may or may not be combined in the same individual. When they are combined, the head of the training school should be designated, "Superintendent of Nurses and Principal of the Training School."

14. The social service department of the hospital should be under the direction of a head worker, who should be responsible to the superintendent. It is recommended that there be a social service advisory committee, which, among other members, should include one or more of the medical staff, and the superintendent of the hospital.

SPECIAL FACILITIES FOR DIAGNOSIS

Several of the largest general hospitals of the United States Public Health Service are being provided with special facilities for the diagnosis of tuberculosis, and for the study of patients, to determine which Public Health Service hospital is best suited to their needs. These hospitals will become clearing houses for the diagnosis and placement of tuberculosis patients in their vicinity, especially for those with doubtful diagnosis, or with complications requiring expert care. At each of them physicians skilled in this specialty will be on duty, and the most modern methods will be in use. All Public Health Service hospitals, however, are open to tuberculosis cases; and admission is never denied because of lack of special facilities. Special centers are already functioning in the Public Health Service hospitals at Fort McHenry, Baltimore, Md.; Fox Hills, Staten Island, N. Y.; and Hospital 35, St. Louis, Mo. Other centers will be organized as soon as possible in order that a country-wide network of diagnostic facilities may be available for this purpose.

MEANS OF EGRESS IN HOSPITAL FIRES*

By H. W. FORSTER, Boston, Mass.

IT is difficult enough to secure adequate egress facilities in factories or other buildings where the occupants are physically fit and mentally competent. The problem in buildings housing the sick and otherwise incapacitated is infinitely harder. The conditions in institutional buildings generally are bad, frequently deplorable. The reason the life loss is not greater than it is does not lie in good buildings, adequate exits, good alarm systems, adequate fire protection, and trained staffs, but in the fact that such buildings are used continually, and fires are likely to be discovered in their incipiency, and in that nurses and other attendants have shown remarkable heroism at times of crisis.

It is the difficulty and the expense of providing even reasonably adequate egress facilities in the ordinary institution that causes such emphasis to be placed in this article on fire prevention and on the installation of automatic sprinklers, for with such an installation properly maintained, the chance of fire getting to the point where it jeopardizes life is exceedingly remote.

The egress problem varies with the building construction, and what will answer for a fireproof ward building will not do for a tinder box serving the same purpose. It also varies with the character of the occupancy. Tubercular patients able to walk and in full possession of their faculties present quite a different problem from incarcerated insane.

Closely allied to egress facilities, of course, is the question of the safety corps, as they have been termed in a preceding section of this article.

Some general comments and specific ones on certain classes of institutions are presented in the following sections:

Egress in Name Only.—In a western institution, the only means of egress from a chapel seating 800 people and located on the third floor of a combustible building was through three narrow doors located at the rear of the chapel and leading to an open wooden stairway. All of the windows were barred.

At one large industrial school for girls, all girls were locked in their rooms on the upper floors of a combustible building throughout the night, the only protection against fire being dry powder tubes and hand grenades. Moreover, the basement of this institution contained considerable quantities of oil, grease, gasoline, and combustible materials generally.

The dormitory shown in Figure 7 is located on the upper floor of an institution for blind children. All woodwork is highly varnished. Thirty of the children sleep in the midst of this kindling pile, from which the only exit is the door shown at the far end of the room, which leads to an open stairway. The windows are so small and high as to be useless for exits.

In one of the most modern institutions for insane in this country, the nurses were found quartered on the third floor of a combustible building at the head of an open stairway with no other means of egress. These conditions are typical of those existing in hundreds of institutional buildings.

The Need of Drills.—In institutions housing children, some attention is usually given to egress facilities and fire drills. The idea seems prevalent, however, that when persons have passed beyond the school age, they are beyond the need of fire drills, and consequently spend the remainder of their lives, wherever they may be, in absolute ignorance as to what action they should take at time of fire. This is the present condition of thousands of aged, blind, deaf, sick, crippled, and insane throughout the country.

Institutions for the Insane.—In institutions for the insane, the uncertainty of control at time of fire is still further complicated by the practice of keeping violent inmates under restraint, generally at remote locations on upper floors, where, behind locked doors, they are kept in straightjackets, camisoles, cuffs, etc. Restraint of this kind is generally used most freely in institutions managed by women. In one institution, seventy-seven inmates were found restrained in this manner at one time. See account of fire No. 34, p. 29, July issue. Obviously, such patients should be located in the safest buildings, and on the ground floor, if possible, to permit most readily of rescue.

Location of the Helpless.—It is evident that in small institutions, a very definite effort should be made to have places of assembly such as chapels, dining rooms, and recreation rooms, located with special reference to ready egress, which almost always means the ground floor. Similarly, the seriously sick and the small children should be on the ground floor, if possible.

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*Fifth installment of an article by Mr. W. H. Forster reprinted by special permission from the April, 1920, Quarterly of the American Fire Protection Association.

Much can be done in the ordinary institution along these lines to improve safety to life without any appreciable expenditure of money.

Doorways.—While for individual rooms, doors generally open inward, for larger assembly rooms it is universally advisable that doors swing with the travel, and that care be taken to see that they do not obstruct corridors when opened.

Doors should be kept unlocked wherever possible. In one asylum for the insane, as many as five locks, all different, have been found between inmates and exit to the outside, three of which locks were unnecessary for adequate control of inmates.

The minimum number of locks, standard keys;

A hospital fire escape, fair as regards pitch of stairs and good as to screen enclosures, but containing so many 180° turns as to be useless for carrying down patients on stretchers.

as wide a distribution of keys as necessary, and constant attendance are the chief means of making the best of a fundamentally bad condition. This of necessity pertains when persons are under lock and key in buildings not absolutely incombustible in every sense of the word.

Windows.—Most fire escapes, as at present installed, are reached through windows. Firemen use windows very often for rescuing persons and for fighting fires inside of buildings. In spite of this, in many institutional buildings windows are covered by screens, ranging from light wire mesh to heavy iron bars set in the masonry. In many cases, substantial protection is necessary on some windows to prevent escape of inmates, but there is no excuse for such massive window bars as are often used. There are cases on record where persons have been roasted to death behind bars of this kind, while firemen outside were helpless to aid them. Where necessary, window screens should be of heavy wire mesh set in a rigid removable metal frame, secured by a lock on the inside, but capable of being opened from the outside without a key. Windows should be of ample size, with sills low enough to permit of their use as exits.

Corridors.—In the dark, or smoke, or under panic conditions, passage through corridors may prove difficult or impossible. Corridors should, of course, be wide enough to accommodate all who will use them at one time under any condition. They should further be kept clear at all times, especial attention being given to the removal of wheel chairs, spare cots, and other obstructions which are apt to be left temporarily in the corridors. Under certain conditions, especially in extensive corridors of combustible buildings, it is advisable to provide smoke barriers and draft stops, consisting of light partitions and swinging doors, at various intervals to retard the spread of smoke and flame for a sufficient period to permit of safe egress.

Horizontal Egress.—The most practical provision that can be made for egress in institutional buildings is an arrangement for moving occupants rapidly and in an orderly manner horizontally through fire walls or fire-resistive corridors, or across open bridges, to buildings or sections which are safe. Where buildings are large, they can be subdivided by standard fire walls equipped with automatic fire doors, thus dividing the building into two or more separate sections, with little danger of fire communicating from one section to the other before all occupants are safely out.

Stairways.—In the majority of present institutional buildings, all floors are connected by open stairways, which may serve as flues for the rapid spread of smoke and flames. When fire occurs on the lower floors of such buildings, the stairways are quickly made impassable. The stairs themselves are often of stone or metal construction, cleaned frequently with oil, and very slippery. Hand rails, if provided at all, are seldom at both sides of the stairways.

As far as possible, in new buildings, stairs should be located in fire towers. In all existing combustible buildings, open stairways should be

enclosed in fire-resistive partitions with fire-resistive doors, held open, if at all, by a fusible link arrangement, which will insure prompt closing at time of fire. At least two fire towers or enclosed stairways should be accessible from every portion of each building.

Ramps.—While by no means generally used, the ideal method of moving helpless persons downward, whether wheeled on beds or carried on stretchers, is on a system of ramps or sloping walkways, surfaced with cork tiles or other nonslipping materials. A slope of one foot in six feet or eight feet is practical.

Smokeproof Towers.—Wherever possible, both in new buildings and in existing buildings, standard smokeproof towers should be provided. Stairways completely enclosed in fire-resistive towers and commonly known as Philadelphia fire towers, provide the safest means of downward exit for able-bodied persons. Entrance to such towers is by open air balconies on each floor, with fire doors on the openings to prevent spread of smoke and flame.

In many of the present institutional buildings, including even the most modern, stairways are enclosed in fire-resistive walls, but doorways at the various floors are of wood, often with glass or open transoms above. Stairways of this type offer only a small portion of the safety assured by standard fire towers.

Essentials for Fire Escapes

Fire Escapes.—In an industrial school for girls, entirely of frame construction, the only means of exit from upper floors was by one narrow open stairway and a vertical iron ladder on the outside of each building. This could be reached only by climbing over the railings of the iron balcony after passing through the chambers of institution officials, the doors of which were kept locked at all times.

In a western institution for the blind, the only exit from upper floors was by means of open wooden stairways or by vertical iron ladders on the outside of the building. In another western institution fire escape doors were found locked and could not be opened.

In a four-story combustible building, housing hundreds of feeble-minded children, an enclosed spiral metal chute on the outside reached to the top floor and was connected with each floor by narrow metal walkways which had rusted through and were so weakened that children could fall through to the ground below.

Conditions similar to these exist in hundreds of institutions throughout the country. Some escapes, to be sure, are wide and properly railed; the stairs have an easy pitch; access to them is direct; they lead to the ground; they are located opposite blank walls or adjacent windows are protected with metal frames and wired glass; they are a valuable means of egress if used. A large majority of fire escapes, however, are a delusion; they may prove death traps. Narrow, steep, reached by climbing over window sills, terminating many feet from the ground, passing windows out of which flames are likely to pour, never used at times of drills, if indeed drills are held, they are a monument to the ignorance of the authorities and the selling ability of the manufacturers. An outside fire escape on an institutional building is generally an admission of the inadequacy of its normal exit facilities.

Adequate exit in new buildings should always be secured without resorting to fire escapes. On many existing buildings, however, fire escapes are necessary because of the inadequacy of the inside stairways. Where necessary, their construction and installation should be in accordance with the National Fire Protection Association rules, and with special regard to the type of institution to be protected.

Fire escape stairways should extend to the ground. Where for any reason it is not possible to do this, a counterbalanced section should be provided. The figure on page 26 shows a fire escape which is a mere pretense.

Fire escapes should be kept unobstructed at all times and this condition verified by frequent tests and inspections. Painting is necessary to prevent corrosion, and by making the escapes the same color as the buildings, they can be rendered quite inconspicuous. Escapes should, of course, be kept free of ice and snow.

For able-bodied and responsible persons, especially officials, nurses, and attendants, individual automatic fire escapes from sleeping rooms may be desirable under certain circumstances. Such escapes consist of a length of steel cable long enough to reach the ground and having a life belt at each end. The cable runs through a steel pulley which is provided with an automatic speed regulating device to prevent a too rapid descent.

Signs and Lighting.—Red and white exit signs, with letters at least 5 inches high and illuminated at night should be placed over all stairways and doors leading directly to the outside. Exit signs should not be omitted over doors leading from roofs and basements. The current for exit lights should preferably be obtained from a system separate from that ordinarily used for lighting purposes. It is also well to provide auxiliary gas lights for use in case the electric service is interrupted.

A STUDY OF HOSPITAL NURSING SERVICE

By ELIZABETH A. GREENER, R.N., Superintendent, Mount Sinai Training School for Nurses, Mount Sinai Hospital, New York City

ALMOST interesting nursing study has recently been undertaken at the Mount Sinai Hospital, New York City, at the request of Dr. E. H. Lewinski-Corwin, executive secretary of the Public Health Committee of the New York Academy of Medicine, in its attempt to secure definite information as to the amount of time necessary for suitable and adequate nursing care of the average hospital patient.

In order that the test might be a fair one, it was decided to select for this purpose the average type of patient from a medical, a surgical, and a pediatric service. Four adult patients (two men and two women) and three children were chosen for this study, and an exact record was kept of all time spent in the performance of nursing duties for a period of twenty-four hours. Only two children were selected at first, but the one chosen in the children's medical ward, a little typhoid patient, experienced a change for the worse and died at the end of twenty-one hours. Because of the fact that this case furnished so striking an example of the type of patient, to whom, because of some unexpected emergency, it is frequently necessary to give much more than average care, it was decided to include it in the records and also to repeat the test on a normal case.

The study, then, covers the proper and necessary nursing care, in a general hospital ward, of seven distinct patients of average type, for twenty-four consecutive hours. Eighteen students, in all, were engaged in making this study. They were told in advance of the purpose of the test, and showed the most eager and active interest, two of the group staying on at their own request for twelve hours in order to insure accuracy of the record. The study, therefore, included variety in the type of patient chosen, and varying capacity in the nursing group concerned.

The time consumed in the performance of each nursing proceedure was estimated, from the moment the nurse began, until she was at liberty to leave the patient, or until the task was completed as the case might be. The time required for necessary charting was included. The main results are shown in chart below. Copies of three of the nurses' records (cases No. 2, No. 4 and No. 7) are also shown.

Attention is called to certain discrepancies in the length of time spent in performing similar service. For instance: in chart No. 2 a nurse records waiting on a patient with bed pan, time three minutes, which included all time actually spent from the taking of bed pan from the rack until it was again returned in proper condition to same place. On chart No. 4 the same service required time varying from eight to fifteen minutes. In one case the patient was helpful and the nurse did not need to remain with her. In the other case, because of the mental attitude of the

	Patient	Diagnosis	Remarks	Hours 7 A.M. to 3 P.M. Hours	Hours 7 A.M. to 3 P.M. Mins.	Hours 3 P.M. to 11 P.M. Hours	Hours 3 P.M. to 11 P.M. Mins.	Hours 11 P.M. to 7 A.M. Hours	Hours 11 P.M. to 7 A.M. Mins.	Total Time Spent in 24 hours Hours	Total Time Spent in 24 hours mins.
MEDICAL SERVICE Case 1 Ward C	Adult Male	Pleural Effusion	Very quiet, reasonable patient who makes few demands and helps himself as much as possible.	2	2		60		49	3	51
Case 2 Ward K	Adult Female	Mitral Stenosis	Same type of patient as No. 1. Easy to care for.	1	50		50		55	3	35
SURGICAL SERVICE Case 3 Ward J	Adult Female	8th day Post-Operative	Reasonable patient, but one of the type that is not so helpful.	2	11	1	23	1	15	4	49
Case 4 Ward K	Adult Male	8th day Gastro-enterostomy	Very sick patient inclined to be faultfinding. Will not be hurried. Must be given much help even in taking nourishment. Makes many demands.	3	23	1	57		54	6	14
CHILDREN'S SERVICE Case 5 Surgical	9 mos.	Empyema	A very typical little baby who needs good nursing care. Bottle fed.	1	58	1	9	1	11	3	58
Case 6 Medical	6 mos.	Feeding Case									
Case 7 Medical	6 yrs.	Typhoid	Same as No. 5. Also bottle fed. A 6 year old patient who had a very virulent form of typhoid. This patient took nourishment very slowly and had to be handled very gently & carefully. Became worse & died at end of 21 hours.	1	31	1	4		57	3	32
				2 15 hrs.	51 20Min.	3 10hrs.	0 32 Mins.	4 7hrs.	50 51mins.	7 33hrs.	50 43 in.
				4 hrs. 49 min. total time spent on 1 patient in 24 hrs.				33hrs. 43 min. Total time spent on 7 patients in 24 hrs.			

Chart showing summary of time consumed in nursing seven patients at Mount Sinai Hospital, New York City, during a period of twenty-four hours.

patient and his determination not to be helpful, all nursing services performed required much more time and greater personal effort.

It will be noted *that thirty-three hours and forty-three minutes were consumed in caring for seven patients.* This is equivalent to *four hours and forty-nine minutes, per hospital patient.* It must be remembered in studying these figures that no time was wasted or lost by the nurse.

Another interesting feature of the study, is the relative amount of nursing care required during different periods within the twenty-four hours. The periods used in thus dividing the day, are those followed in hospitals having an eight hour nursing day; the first period from 7 a. m. to 3 p. m., the second period from 3 p. m. to 11 p. m., the third period or night duty period, from 11 p. m. to 7 a. m. Using this division we find that

CHART SHOWING TIME RECORD OF NURSING SERVICE RENDERED TYPICAL MEDICAL CASE AT MT. SINAI HOSPITAL, NEW YORK CITY

November 17, 1920. Case 2—Mitral Stenosis.

Female medical case, adult, no special treatment. Ice bag applied p. r. n.

Service Started		Service Ended	Minutes
A.M.		A.M.	
7:10	Mouth Wash		
	Full bath		
	Alcohol rub		
	Hair combed	7:52	42
8:02	Ice-cap prepared		
	Glass of water	8:10	8
8:10	Bed made, table dusted	8:20	10
8:34	Medication	8:36	2
8:60	Bed pan	8:52	2
8:52	Temperature, pulse, respiration	8:55	3
9:25	Preparation of 10:00 a.m. lunch	9:40	15
10:00	Doctor's rounds	10:02	2
10:40	Bed pan	10:42	2
11:30	Dinner prepared and served	11:35	5
12:05	Tray removed	12:06	1
P.M.		P.M.	
1:02	Bed pan	1:05	3
1:15	Fruit and glass of water	1:17	2
1:49	Ice-cap prepared	1:53	4
2:00	Medication	2:06	6
2:30	Bed pan	2:33	3
	Total time consumed during first period		*1 hr., 50 min.*
3:00	Orangeade served	3:05	5
3:42	Bed pan	3:45	3
3:69	Temperature, pulse, respiration taken	4:02	3
4:30	Supper served	4:35	5
4:50	Tray removed	4:52	2
5:02	Bed pan	5:06	4
5:55	Alcohol rub	6:05	10
	Bed prepared for night		
6:07	Bed pan	6:10	3
8:00	Medication	8:05	5
8:07	Ice-cap prepared	8:12	5
8:16	Temperature, pulse, respiration	8:18	3
9:15	Bed pan	9:17	2
9:30	Patient slept until 3:00 a.m.		
	Total time consumed during second period		*50 min.*
A.M.		A.M.	
3:05	Bed pan	3:08	3
3:15	Orangeade served, patient made comfortable	3:25	10
5:00	Basin of water, towel		
	Removed same after patient washed	5:10	10
5:20	Hair combed	5:30	10
5:32	Bed straightened	5:34	2
6:20	Brenkfast served	6:40	20
7:00	Tray removed		
	Total time consumed during third period		*55 min.*
	Total time consumed in 24 hours		*3 hrs., 35 min.*

the nursing time required in the first period is twice that required in the third period; the second period strikes a balance between the other two. In other words if one nurse could perform the duties required in connection with the care of a given group of patients from 11 p. m. to 7 a. m., the assistance of a second nurse for four hours would be needed in the second or afternoon and evening period, while two nurses would be needed constantly in the period from 7 a. m. to 3 p. m. It is this varied demand which necessitates so much "broken time" in the arrangement of the eight hour nursing day.

If the figures obtained as a result of this study are used as a basis for estimating nursing needs, we are forced to conclude that in a hospital ward of thirty-six beds, with an acute service we would require a nursing staff of from sixteen to eighteen nurses for the twenty-four hours of service. The standard of nursing service proposed is probably no higher than is demanded if both patient and nurse are to be fairly treated.

In hospital administration it is necessary to take cognizance of the fact that an additional force of nurses is required for nursing services apart from wards. In the hospital in which the study was made, this additional force of nurses (the figures refer to pupil nurses only) is as follows:

Operating room	10
Social service and maternity out-door department	6
Dispensary	12
Obstetrical service, affiliation	12
Diet kitchen and milk room	4
On leave of absence or vacation (average)	10
Sickness, average	8
Total	62

Therefore, in this hospital, with a daily average of 450 patients, there should be at least 288 student nurses, and a supplementary group of not less than thirty probationers at all times in order to maintain the indicated standard.

Regarding this conclusion, the criticism might be advanced that no allowance has been made for the group of out of bed patients, invariably found even on the most acute nursing service, many of whom require little actual nursing care. To offset this group, however, there is at all times a greater number of acutely ill patients, who require almost continuous care. This is particularly marked on surgical wards, where post-operative cases must almost be "specialled" for the first twenty-four hours, and quite frequently for the first three or four days after operation.

It will also be noted that no mention has been

CHART SHOWING TIME RECORD OF NURSING SERVICE RENDERED TYPICAL SURGICAL CASE AT MT. SINAI HOSPITAL, NEW YORK CITY

November 20, 1920. Case 4—P. O. Gastro-Enterostomy.

5th day P. O. Gastro-enterostomy—This record is one of an average P. O. case, but a patient who is highly neurotic and difficult to care for. He moves very slowly and needs much more individual time and attention from the nurse than many cases require eight days after operation.

Service Started		Service Ended	Minutes
A.M.		A.M.	
7:22	Bed pan	7:30	8
7:55	Mouth wash	7:57	2
8:00	Full bath—alcohol rub, bed made (all linen changed), soiled linen, tub, etc., put away	8:50	50
8:53	Water ℥vi	8:58	5
9:00	Temperature, pulse, respiration taken	9:08	8
10:00	Tea ℥vi	10:05	5
11:00	Bed pan	11:15	15
11:20	Enema (low S.S.)	11:35	15
11:40	Bed pan (away, etc.)	11:50	10
12:00	Dinner prepared and fed	12:45	45
P.M.		P.M.	
1:45	Water ℥vi	1:50	5
2:00	Urinal	2:05	5
2:15	Milk ℥iii	2:25	10
2:30	Doctor's visit	2:40	10
3:00	Chicken broth	3:10	10
	Total time consumed during first period		*3 hrs., 23 min.*
3:20	Arranged patient's flowers	3:27	7
4:00	Temperature, pulse, respiration taken	4:05	5
4:10	Patient made comfortable, linen straightened, pillows arranged, etc.	4:20	10
4:30	Supper prepared and fed	4:55	25
5:00	Mouth wash, alcohol rub, bed straightened, sheet changed	6:20	20
	Water ℥v		
6:45	Egg-nog	7:00	15
	Total time consumed during second period		*1 hr., 22 min.*
7:00	Temperature, pulse, respiration	7:08	8
7:10	Water ℥iii	7:14	4
7:30	Urinal	7:40	10
8:00	Hot blankets	8:08	8
10:00	Water ℥iv	10:05	5
12:00	Temperature, pulse, respiration	12:08	8
A.M.		A.M.	
2:30	Chart recopied—replaced new sheets	2:45	15
2:50	Water ℥iv	2:55	5
4:15	Temperature, pulse, respiration	4:21	6
6:25	Breakfast prepared and fed	6:45	20
	Total time consumed during third period		*1 hr., 29 min.*
	Total time consumed in 24 hours		*6 hrs., 14 min.*

made of the hours necessarily spent in nursing duties on the wards, connected with the care of the patients, but not included as actual personal care—such as the care, surgical cleanliness and upkeep of examining rooms, dressings carts, trays, and infusion stands; keeping up surgical supplies, dressings, gloves and all equipment required for special treatments in wards; making rounds and rounds and more rounds at all hours of the day with the attendants, associates, adjuncts, and house staff; writing up reports, requisitions, and treatment lists; taking patients to and from operating rooms; caring for supply closets, cupboards, blanket heaters, linen closets, pantries, laboratories; keeping up the supplies of coats, suits, gloves, and looking after visitors, patients' personal belongings, etc.

In the face of such facts as these we may well be asked how hospitals even pretend to care for their patients with the present shortage of nurses. There are two answers to this. First, one nurse can take a group of patients and work with them much more economically from the standpoint of time saving, than when dealing with an isolated case. Second, *patients in general hospital wards at the present time are not receiving the amount of nursing care to which they are entitled.* Nurses are struggling to give them all the nursing care possible, and to do the most important and

CHART SHOWING TIME RECORD OF NURSING SERVICE RENDERED TYPICAL PEDIATRIC CASE AT MT. SINAI HOSPITAL, NEW YORK CITY

November 17, 1920. Case 7—Typhoid (child 6 yrs. old.)

This is the chart of a child who was selected for this study but who died at the end of twenty-one hours. It furnishes a striking example of the ward patient to whom it often becomes necessary to give much more than the regulation amount of time and care.

Service Started		Service Ended	Minutes
A.M.		A.M.	
7:50	Temperature, pulse, respiration	7:57	7
7:57	Covers taken off bed, mouth washed, bath, hair combed, bed made	8:40	43
8:40	Water ℥v	8:46	6
9:40	Cocoa ℥viii	9:50	10
	Patient vomited		
9:50	Sheet changed, etc.	9:59	9
9:59	Mouth washed	10:03	4
10:30	Opened infection on hand	10:32	2
10:40	Water ℥vii	10:43	3
12:00	Milk and broth refused	12:03	3
12:10	Water ℥v	12:12	2
	Epistaxis		
12:30	Pillow removed, sheet changed		
	Ice applied	12:45	15
12:45	Water ℥vi		
12:55	Milk refused	12:47	2
		P.M.	
P.M.	Temperature, pulse, respirations	1:00	5
1:30	Orangeade ℥vi	1:45	15
2:00	Involuntary defacation		
	Clothing changed	2:15	15
2:25	Mouth washed	2:30	5
2:30	Sponge for temperature	2:45	15
3:00	Water ℥v	3:10	10
	Total time consumed during first period		*2 hrs., 51 min.*
3:20	Mouth washed	3:25	5
3:35	Enema given		
	Clothing changed, etc.	4:00	25
4:00	Nourishment refused	4:10	10
4:10	Temperature, pulse, respiration	4:15	5
4:20	Orangeade refused	4:25	5
4:30	Epistaxis	4:35	5
4:45	Mouth washed	4:50	5
5:00	Water ℥iv	5:10	10
5:30	Urinal	5:40	10
6:00	Vomited, bed changed	6:15	15
6:30	Camphor, gr.iii	6:35	5
	Atropine gr. 1/150		
6:40	Pillows changed	7:00	10
	Water ℥iv		
7:00	Sub. Q. given	7:30	30
7:30	Digifolin given	7:33	3
7:40	Wrapped in warm blankets	7:45	5
8:00	Temperature, pulse, respiration	8:05	5
8:05	Seen by doctor	8:15	10
8:30	Pulse and Respirations	8:37	7
9:00	Pulse and respiration	9:13	13
9:20	Cracked ice given	9:26	6
10:00	Cracked ice given	10:03	3
10:30	Bed changed	10:37	7
	Total time consumed during second period		*3 hrs., 9 min.*
11:00	Pulse, respiration taken	11:05	5
11:45	Seen by doctor	12:00	15
12:05	Epistaxis	12:15	10
12:20	Pulse respiration	12:25	5
A.M.		A.M.	
2:18	Transfusion given	2:35	23
3:00	Hypo. camphor in oil		
	Pulse, respiration taken	3:06	6
3:20	Patient watched constantly		
	Warm blankets	4:06	46
	Pulse, respiration		
	Patient ceased to breathe.		
	Total time consumed during third period		*1 hr., 50 min.*
	Total time consumed in 21 hours		*7 hrs., 50 min.*

essential things for their patients' comfort and welfare. But if you wish a frank expression of opinion, ask the nurses themselves whether or not they are able to give their patients the care which they require, and you will soon be answered. It might also be enlightening to get an expression of opinion from patients.

At present, hospitals are struggling to perform an impossible task. I say without fear of contradiction that student nurses in training with their wholesome, happy spirit of ambition and human interest, are doing more to preserve the morale of the hospital than any other factor, and that they accomplish marvels. But hospital and training school authorities know that, while they are struggling to do all in their power, they are falling pitifully short of what should and could be done in the line of nursing for their patients.

When such facts as these are more generally known, and more frankly admitted, the general public may begin to realize that an important duty faces them, in helping hospitals to solve the problem of furnishing sufficient nursing care for the sick of the community.

LATIN AMERICAN TRAINING SCHOOL

The Training School of Santo Tomas Hospital is the only one of its kind in Latin America. The hospital to which it is attached is the oldest one south of the United States, founded in 1696, shortly after old Panama had been sacked and burned by the Pirate Morgan, and the new city had been established in its present location. Some of the buildings of this original hospital still stand and are at present being used as chapel and administration buildings. Very little record can be found of the operations of the hospital after its establishment until 1865, when it was renovated and re-established by the Bishop of Panama, and placed in charge of French Sisters of Charity. If it was operated at all, it was probably on a very small scale, since it is not mentioned in any of the official documents.

The sanitary and health conditions of the Isthmus of Panama in those days beggared description. Yellow fever and malaria raged rampant everywhere, and thousands of deaths were the annual toll. On October 17, 1905, an agreement was concluded between the Governor of the Canal Zone and the President of Panama, whereby all sanitary arrangements of the cities of Panama and Colon, as well as the administration of the Santo Tomas Hospital, would come under the supervision of the Health Department of the Isthmian Canal Commission. Under the provision of this agreement the Governor of the Panama Canal agreed to furnish a superintendent, two interns, and three graduate nurses for the administration of the hospital, while the Republic of Panama was to furnish all other employees, including twelve graduate nurses. This was the first step in the reorganization of the hospital. The next act was to install a modern sewerage and water system, for which there was a crying need.

On December 14, 1908, the President of Panama issued a decree authorizing the establishment of a training school for thirty nurses. Many difficulties were encountered in the operation and maintenance of the school. The girls of the upper classes of society could not be persuaded to take the lowly profession of nursing. The young women of the intermediate class in a few cases were willing to enter the school, but in practically every case they lacked the necessary preliminary education. Practical education such as arithmetic, grammar, etc., were not considered essential to women at this time in Latin America. In addition, it was very difficult to secure graduate American nurses who spoke Spanish with sufficient fluency to carry on the instruction in practical nursing. However, in spite of all difficulties, the training school turned out eleven graduate nurses during the first eight years of its existence, and the hospital was changed into a well conducted institution, patronized by all classes of Panamian society.

In 1916 a reorganization of the training school was considered necessary, to give some of the preliminary education which had been found to be essential. Teachers were secured and primary school education was given in the hospital.

At present the pupil nurses come from all classes of people. Those coming from the interior of the Republic of Panama, who have lived in a hut, and probably slept on a rug on the floor, must first be taught how to live in civilization. As a general thing they are apt pupils along lines in which they are interested, they have splendid memories, and study as well as the usual nurse in training. To offset these good qualities, they are generally wasteful, most of them having been accustomed to use what they had on hand today with no thought for tomorrow, and they are often unreliable.

Since its organization, in spite of obstacles, the institution has progressed steadily in size and efficiency. In January, 1918, a class of ten nurses was graduated; this class was composed of all the pupils who had been there more than three years. In 1919 another class of nine, and in 1920 a third class of eight pupils concluded their work. At present there are three classes in the school. The graduates of the past years are all well placed and there is a constant demand for many more than the hospital can supply. The social position of the nurses has risen with the progress of the institution, so it is now possible to get more women of the upper class to enter the profession.

The school is conducted along the same lines as any similar institution of any country in the world, but particularly along those of the United States. The entrance requirements are necessarily slightly lower, on account of the conditions which have been mentioned, but the elementary classes do much to overcome this disadvantage. A physical examination is required of each candidate, as well as the educational examination. The pupils are accepted for a month on probation, at the end of which they are either permanently accepted or rejected. A standard uniform has been adopted, regular hours of study, sleep, exercise, and recreation are required, and class work is carried on during nine months of each calendar year. Written examinations are given in all subjects in which lectures are delivered, and the successful candidates are graduated at the end of their three years' course of study.

The outlook for the future of the school is extremely bright, and it may easily become in the next few years the equal of any training school south of the United States.

Such help as we can give each other in this world is a debt to each other; and the man who perceives a superiority or a capacity in a subordinate, and neither confesses nor assists it, is not merely the withholder of kindness, but the committer of injury.—Ruskin.

The MODERN HOSPITAL

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Contributors, subscribers, and readers will find important information on advertising page 42.

THE PARTING OF THE WAYS

MANY a hospital of today finds itself at the parting of the ways. To select one road means wiping out an accumulated deficit, establishing itself on a sound financial basis, and adding such facilities in building equipment and personnel as will enable it to give the community adequate service. To select the other road means meandering along at the old pace, conducting the hospital in an unbusinesslike manner, increasing the deficit, and hampering the work by the absence of such facilities as are required in an up-to-date hospital in order to treat its patients scientifically, and to attract and hold first class physicians and surgeons.

With the modern advance during the past three or four years in diagnostic and therapeutic methods, and the consequent multiplicity and perfection of instruments of precision, no hospital can expect to retain the interest of first class medical and surgical men, unless it provides whatever facilities are needed to enable them to make an intensive study of every case under their care. This means, among other things, adequate, up-to-date laboratories and x-ray equipment, as well as hydrotherapeutic and electrotherapeutic appliances. If the hospital has difficulty in securing first class men, it may be found, upon careful analysis, that its difficulty lies, in part, at least, in its failure to provide them with the facilities they need to conduct their work well. This is not saying, of course, that every request for a piece of new apparatus or a new instrument must be granted without question. The attics and store rooms of many hospitals are littered with many an appliance that struck the fancy for the moment, only to be discarded when its limitations were discovered. What we do say, however, is that every hospital should strive to equip itself thoroughly with standard instruments and appliances, and such laboratory and x-ray facilities as capable men need for efficient work.

KEEPING UP WITH THE TIMES

THE duty of the hospital superintendent to keep abreast of the latest developments in the field of business administration, in order to conduct the business affairs of his institution along modern lines, was very ably presented by Dr. Harold W. Hersey, superintendent of the New Haven Hospital, New Haven, Conn., in a paper read at the recent meeting of the American Hospital Association, on "Keeping Up With Administrative Progress."

Dr. Hersey makes several practical suggestions as to how this duty may be fulfilled. Few hospital superintendents have had the advantage of pursuing courses in business administration, such as have recently been established in some of the universities, or of attending courses especially designed for the training of hospital superintendents, such as the course now being given in the Cincinnati General Hospital, in conjunction with the University of Cincinnati, and the Vancouver General Hospital, in conjunction with the University of British Columbia. Dr. Hersey advises superintendents to pursue some well recognized course in business administration, and to devote a definite period weekly to its study. Interest will be added, and often greater profit will result, if several superintendents in the same community pursue the course together, and meet at intervals for discussion and the interchange of views. In acting upon this suggestion great care must, of course, be taken in the choice of the course to be pursued.

A second suggestion is that the superintendent take occasion to visit well conducted industrial plants, for the purpose of gathering new ideas that have a direct bearing upon the work of his own institution. The power plants, store rooms, accounting, and statistical departments of large industries are full of suggestions to the hospital superintendent, and an occasional tour of inspection through some of the principal departments of well conducted hotels will often yield rich results.

A third suggestion is that the superintendent read, not only the recognized medical publications and the magazines devoted to hospital administration, but also several magazines devoted to business administration. These magazines often publish timely articles frequently containing suggestions which, if acted upon, will increase the superintendent's efficiency and enable his institution to render a more accepted service.

All of this, of course, demands time, but the increased efficiency which is bound to result from following these practices, will undoubtedly yield the time needed for further systematic study.

YOUR COSTS MAY BE LOW, BUT WHAT OF YOUR SERVICE?

NOT a low *per diem* cost, but service should be the norm for the measurement of hospital efficiency. This, of course, does not mean that there should be any relaxation of the eternal vigilance necessary to keep costs down to reasonable limits; it does mean, however, that the hospital superintendent is not justified in cutting costs at the expense of service. When the patient commits himself to the hospital for treatment, he does so on the assumption that the hospital will render the highest type of service possible, and this may, and often does mean, a higher cost per day than would prevail were a lower type of service rendered. Not infrequently one finds a superintendent boasting of his low *per diem* cost. Whether such boasting is justifiable depends upon what the lost cost represents in service rendered. One may conduct a hospital that is little more than a boarding house, or a third rate hotel, and do it at a surprisingly low cost as hospital costs go, but one must expect to have a higher cost if the hospital renders the highest type of service, a type of service that calls for expert personnel, and modern diagnostic and therapeutic equipment. If the highest type of service is rendered and the *per diem* cost is low when compared with other institutions doing equally efficient work, then, and then only, is there occasion for justifiable pride.

A HOSPITAL AS A MEMORIAL

THOSE who contemplate the erection of a memorial to some individual, group, or event, do well to give earnest consideration to the merits of a well-designed hospital.

Although many monuments and statues are hideous to a degree, some are beautiful and give real pleasure to those who behold them. For these we have nothing but words of praise. But why should not more memorials take the form of hospitals in which practical utility and artistic design find a happy combination? Such memorials will not only give pleasure to the esthetic sense, but also minister to human needs and human aspirations. Indeed, it is difficult to conceive of a more enduring commemoration than a hospital, through which suffering is relieved and the health standards of the community elevated.

This is particularly true of a hospital constructed and operated to serve as a health center from which emanate all the varied activities pertaining to the protection and promotion of the public health.

As a war memorial a hospital is especially fitting. The World War was fought in the spirit of service. Hospitals are altogether in keeping with this spirit. They can, moreover, be made to minister directly to discharged sailors or soldiers, and their families. Incidentally, relatives and friends of soldiers who made the supreme sacrifice, would have the opportunity to endow beds in their names, thereby perpetuating their memory in ministering to human needs. To use the apt phrase of the *American City*, hospitals as war memorials "would help the living while commemorating the dead."

SEND IN YOUR QUESTIONS

TO THE wide awake superintendent who is anxious to have his hospital render the community a service that is thoroughly efficient, scarcely a day goes by in which questions do not arise relative to some phase of the work of the institution that has to do with its equipment and operation. Today it may be a question as to the cost of laundry work or the best way to wash and sterilize feather pillows; tomorrow it may be a question as to the best type of plumbing fixtures for the kitchen, or the best method of storing vegetables; a week from today it may be a question as to the best method of treating an old surface to a new coat of paint, or the most effective way of keeping iron pipes from rusting; next month the superintendent may want to know how the linen of the hospital after it has been washed can be assorted most expeditiously, or what preparation to use in cleaning the hospital's bath tubs.

Just because questions of this character—many of them puzzling if not vexatious—do constantly arise in connection with the operation of the kitchen, the laundry, and the housekeeping department of the hospital, THE MODERN HOSPITAL, in conjunction with practical articles which it will publish during the coming month on the various phases of the equipment and operation of these departments, will answer any questions relating to these subjects that may be submitted during

the month. We urge superintendents, therefore, to bring their practical problems to us. With the help of our expert consultants, we shall be glad to assist in their immediate solution. The round table discussions at the annual conventions of the American Hospital Association are excellent, and meeting a real need, but why wait until the next convention before you settle that vexatious question?

NAVY LAUNCHES HOSPITAL SHIP

JANUARY will probably see the great hospital ship *Relief*, the first hospital ship to be built from the keel up for hospital purposes, placed in commission. We, therefore, count ourselves fortunate in being able to place before our readers an account, both timely and authentic (see p. 18), of the construction of this ship, which with its five hundred beds takes rank among the larger metropolitan hospitals.

As each battleship has a fully equipped medical department of its own, which meets ordinary needs, this hospital ship will in no way supplant these departments, nor will she take over any of the functions of the shore hospitals. She will take her place as a fleet auxiliary, just as the supply ships, repair ships, and colliers do, and will move with the fleet helping to make it more self-sustaining.

But not only will she serve as a hospital ship for the fleet, fully equipped to care for its needs, in any climate and under all conditions, but she will also carry a complete movable hospital, including beds, medical and surgical supplies, and even motor ambulances. This will make it possible to establish a base or auxiliary hospital in the event of an epidemic, or in case of the necessity of landing a naval brigade.

DON'T LET YOUR WITS GO WOOL-GATHERING

THE shortening of the hours of nurses in hospitals—in many instances taking the form of an eight-hour day—is a reform that will interest all who are anxious for fair play, and the establishment of working conditions that tend to minimize the baneful effects of fatigue, both upon health and the character of the work performed. This reform, however, as the *Nursing Mirror* (London) very appropriately pointed out, must justify itself both with reference to the nurse and her work. To quote this magazine, "The full strength of the reform will be that the nurse is not only healthier and happier, but that the patient is more effectively nursed, and receives more sympathy and consideration than under the old condition." The added time and leisure must be wisely spent, in the pursuit of those things that make for health and a richer life, and that are bound to reflect both on the character of her work and the fuller contribution she is able to make to the general life of the community beyond the confines of her specific vocation. To conduct herself otherwise would be to play into the hands of those who have contended that with more leisure and outside interests, she would not give as wholehearted and undivided service as formerly. The contrary should be true; a more efficient and undivided service should be rendered.

Dawdlers there always will be in every profession; conscientious members of the nursing profession should see that as few as possible are permitted to remain within their ranks.

DIVIDED RESPONSIBILITY A BANE

IT CANNOT too often be pointed out that one of the vital essentials of efficient hospital administration is that, except for the executive committee of the board of trustees, there should be no committees with executive powers discharging managerial duties. The presence of such committees is working grave injury to many institutions that might otherwise be doing far more excellent work. Numerous committees having executive powers means working at cross purposes and a division of responsibility. To tolerate them is doing an injustice to the chief executive officer, who should be held responsible by the board of trustees for the operation of the hospital.

This intolerable situation is all too prevalent. Glaring instances of it have been unearthed by the Cleveland Hospital and Health Survey which has been conducted in Cleveland, Ohio, under the auspices of that city's Hospital Council. Similar studies in other communities would undoubtedly reveal many other instances of this condition. Not infrequently one hears of Boards of Lady Managers who are empowered with executive functions by direct provision of the hospital's constitution or as the result of the hospital's custom and practice. Now and again individual members of such a board give directions to members of the hospital's staff. This is all wrong and boards of trustees should awake to the folly of this loose form of organization, and insist that all committees, except the executive committee, be advisory to the board of trustees and to the superintendent.

In a summary of its recommendations to one of the hospitals studied, the Cleveland Hospital and Health Survey specifically recommends that the superintendent be delegated full executive control of the hospital, including the training school.

NEW SURGEON OF NAVY APPOINTED

Underwood & Underwood

REAR ADMIRAL EDWARD RHODES STITT

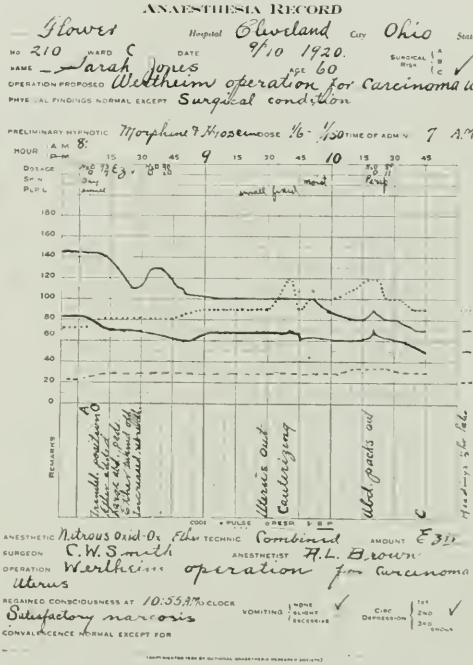
THE new surgeon general of the Navy, Rear Admiral Edward Rhodes Stitt, was born at Charlotte, N. C., in 1867. He received his degree in medicine from the University of Pennsylvania in 1889, and in the same year was appointed assistant surgeon of the Navy. In 1902 he was ordered to the United States Medical School as instructor in bacteriology and pathology, and in 1905 he served as medical officer of the Nicaraguan Canal Commission, an assignment which gave him an exceptional opportunity to study tropical diseases. He later studied in the London School of Tropical Medicine, and taught along this line on his return to the Naval Medical School. In 1909 Admiral Stitt was ordered to command the Naval Hospital at Canacao, returning to the United States in 1911 to take up his academic duties. In 1917 he was made rear admiral, and during the war he was responsible for the professional and educational standards of the Medical Corps of the Navy, through his duties in the preparation of medical officers just entering the service. Admiral Stitt is well known to the physicians of the country as an educator, as a man of remarkable attainments in laboratory research, as the author of several standard medical text-books, and as an inspiring leader in medical science. A long record of responsibility and achievement, therefore, is behind Rear Admiral Stitt as he enters his new office of surgeon general of the Navy.

UNIFORM ANAESTHESIA RECORDS FOR ALL HOSPITALS

The National Anaesthesia Research Society has recently adopted a uniform chart for use in all hospitals.

After studying and comparing charts from all leading hospitals and clinics of the United States a committee of Drs. A. H. Miller, Providence; E. I. McKesson, Toledo; and A. F. Erdmann, Brooklyn, devised a blank chart. It is considered to embrace all essential points in the administration of an anaesthetic and leaves such a record as will speedily show the surgeon, anaesthetist, and nurse the history of their case.

This chart has been designed to show what happens to the patient and how he reacts to the various factors that bear upon his case. Detailed records of this nature



A chart of this kind, properly filled out, affords all the information one needs to have about the way a patient reacts to an anesthetic.

have been all too few. Blood pressure, respiration, the color of the skin, and the reaction of the pupil are of prime importance and the requirement of such records will stimulate better work on the part of all.

Such records, systematically kept, will yield information never before available to the medical and surgical world.

In the interest of such information, the National Anaesthesia Research Society will print and distribute at cost this uniform chart to all hospitals using it.

The chart reproduced herewith was filled out by a leading anesthetist in a typical case.

The wise man never heard a joke
But living wisdom from it broke;
The fool no wisdom ever learned
But it in him to folly turned.—Gems of the Orient.

HOSPITAL LIBRARY AND SERVICE BUREAU

of The American Conference on Hospital Service

ALTHOUGH the work of the Hospital Library and Service Bureau of the American Conference on Hospital Service has been going forward steadily since its recent organization, it has been largely of a preliminary character. One of the interesting pieces of work accomplished is a comprehensive list of subjects, carefully classified, upon which the Bureau will collect and file literature and data. The list is published in order to give our readers an opportunity to study it, and send in any comments they may wish to make directly to the Hospital Library and Service Bureau, 22-24 East Ontario Street, Chicago, Ill. It should be understood, of course, that much of this material has not as yet been collected. As the material becomes available, however, announcements will be made from time to time in the hospital, nursing, and medical press.

I. The Hospital Field

- Methods of determination of needs of (Hospital / Dispensary / Sanatorium) Service.
- Community surveys, methods of community organization and preliminary planning.
- Financing
  - Methods of estimating capital funns for construction and maintenance.
  - Finance committee organization.
  - Securing funds for buildings, endowment, current expenses, etc.
  - Aid from public funds—data to be compiled from state laws.
  - Publicity methods employed in financing.
  - Community chests and federated charities.
  - Educational campaigns and "drives."
- I. The hospital field.
- Types of hospitals..
  - Classed by control.....
    - Public .....
      - Town.
      - Municipal
      - County.
      - State.
      - Federal.
    - Incorporated ...
      - For profit.
      - Not for profit.
    - Private .....
      - Personal ownership.
      - Group ownership.
  - Classed by service rendered
    - General
    - Special .....
      - Nervous and mental.
      - Isolation.
      - Tuberculosis.
      - Convalescent.
      - Children's.
      - Orthopedic.
      - Maternity.
      - Surgical.
      - Eye.
      - Ear, Nose and Throat.
      - Skin and cancer.
      - Medical.
      - Diagnostic.
      - Drug addiction.

II. Construction of Hospitals

- II. Construction. Hospitals, Dispensaries, Sanatoriums ...
- Hospitals as a whole.
- Floor plan files..
  - Special departments...
    - Administration.
    - Kitchens.
    - Wards.
    - Operating rooms.
    - Dispensaries.
    - Nurses' homes.
    - Service buildings.
    - Laboratories ..
      - Pathological.
      - X-ray.
      - Clinical.
      - Serological.
      - Metabolic.
      - Dietetic.
      - Departmental.
- Follow-up comment on plans after a year of operation.
- Materials ....
  - General descriptions and serviceability.
  - Comparative costs, etc.
- Index of architects, consultants, and builders.
- Costs of buildings
  - Records of building costs as far as obtainable.
- Equipment ...
  - Lists of equipment used in individual hospitals, dispensaries, and special clinics.
  - Costs of equipment placed in individual hospitals .....
    - Hospitals.
    - Departments.
    - Follow-up comments on equipment after one year of use.

III. Operation of Hospitals

- III. Operation
- Development of general internal organization .....
  - Diagrams of organization.
  - Literature on organization, constitution and by-laws in use.
- Affiliation with... .
  - Medical schools.
  - Church.
  - Industry.
  - Others.
- Community relations with
  - City, town, and county.
  - Local relief-giving organizations.
  - Public or legal supervision of illness and health.
- General relations
  - With national, state, health, hospital, professional, and departmental activities and organizations.
- Staff..
  - Organizations.
  - Responsibilities.
  - Work.
- Keeping professional records .....
  - Policies.
  - Principles.
  - Systems..
    - Equipment costs.
    - Maintenance costs.
- Nursing .....
  - Training schools.
  - Private duty.
  - Operating room.
  - General duty.
  - Departmental.

III. Operation of Hospitals (Continued)

- III. Operation (continued)
  - Laboratories
    - Pathological.
    - X-ray.
    - Clinical.
    - Serological.
    - Departmental.
    - Metabolic.
    - Dietetic.
    - Organization.
    - Plans and space.
    - Equipment.
    - Work and relation to other departments.
    - Charges for work.
  - Purchasing
    - Equipment
    - Supplies
    - Special
    - Methods and policies in use.
    - Sources of supply.
  - Mechanical
    - Engineering and all mechanical departments.
    - Policies and plans in use for securing and supervising.
  - Dispensary (when a department)
    - General organization.
    - Staff organization.
    - Community relations.
    - Social work.
    - Policies as to fees.
  - Social work
    - Organization of department.
    - Policies and work.
    - Relations to
      - Hospital executive.
      - Staff.
      - Training school.
      - Community agencies.
  - Accounting
    - General principles.
    - Policies in use.
    - Systems.
  - Charges for service
    - General principles.
    - Policies in use.
    - Record of schedules used by hospitals of different sizes, classes, etc.

IV. Training of Hospital Personnel

- IV. Training of hospital personnel
  1. Administrators.
  2. Nurses.
  3. Laboratory and x-ray technicians.
  4. Pathologists.
  5. Dietitians.
  6. Anesthetists.
  7. Social service workers.
  8. Internes.

  Schools. Courses. Methods.

V. Organized Activities Bearing on the Hospital Field

- V. Organized activities bearing on the hospital field
  - Direct.
    - General hospital associations
      - U. S. and Canada.
      - Foreign.
      - State.
      - Local.
    - Professional associations
      - Medical.
      - Surgical, etc.
    - Departmental associations
      - Social service.
      - Dietetic.
      - Nursing.
      - Laboratory
        - Pathological.
        - X-ray.
        - Clinical.
        - Serological.
        - Metabolic.
        - Dietetic.
        - Departmental.
  - Related.
    - Public health
      - Mental hygiene.
      - Tuberculosis.
      - Housing.
      - Child welfare.
      - Health centers.
    - Special nursing
      - Public health
      - Industrial.
      - Military.
    - Government
      - Army.
      - Navy.
      - Public health.
      - Other departments producing material of value to hospitals.

VI. Associated Information

- VI. Associated information
  - Vital statistics.
  - Insurance reports.
    - Life.
    - Sickness.
    - Accident.
    - Industrial.
    - Fire.
  - Compensations or subsidies.
    - Industrial { State / Direct } Policies and methods in use.
    - From other insurance.
    - From city, county, or state.
  - Legal.
    - Decisions.
    - State and Federal laws affecting hospitals, dispensaries, etc.
    - Pending legislation.

VII. Hospital Literature

- VII. Hospital literature
  - Libraries.
  - Books, publishers, and authors
    - Subject and author's index.
  - Periodicals.
  - Reports
    - Federal.
    - State.
    - Municipal.
    - Hospital.
    - Health departments.
    - Surveys, etc.
  - Hospital statistics.

TUBERCULOSIS CLINICS ESTABLISHED

An important part of the work of the Illinois Tuberculosis Association for the current year is based on two propositions. The first one is that "The next step is the first step, the location of the tuberculosis patient." The second is, that an entirely successful warfare against tuberculosis cannot be carried on without better instruction, and increased interest on the part of the medical profession. A staff of medical consultants has been formed, under the general supervision of Dr. George Thomas Palmer, president of the Illinois Tuberculosis Association, and the immediate direction of Dr. Russell E. Adkins, director of Medical Field Service. The members of this staff are pledged to devote some time each week to clinical work in the 102 counties of the state. Clinical meetings are being held in more than thirty counties each month, by working in conjunction with the county medical societies and loral tuberculosis associations. The meetings are for the instruction of the medical profession, for the clearing up of doubtful diagnoses, and for the thorough re-examination of returned tuberculous soldiers. This service will be carried on indefinitely, thus bringing a competent specialist in tuberculosis to every county at least four times a year.

DEMAND FOR PUBLIC HEALTH NURSES FILLED

The Red Cross Bureau of Information, 44 East Twenty-third Street, New York City, stands ready to supply nurses with any information connected with the nursing situation as covered by the Red Cross, and to be the instrument of exchange for communities, business men, industrial operators, individual persons who desire the services of the nursing profession.

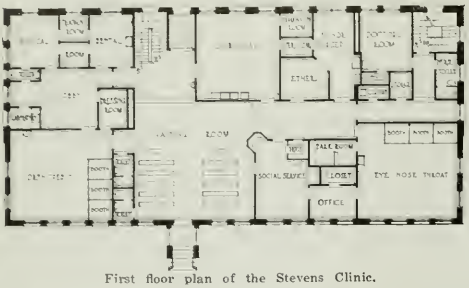
If you are a nurse and wish to do institutional work, private duty nursing, go into or prepare for public health nursing, just make your desires known to the Red Cross Bureau. It is a veritable clearing house for nursing activities all over the country; it is a national storehouse of data, any section of which will be generously placed at your disposal. Nurses released from military service have both in this country and overseas found assistance and advise readily forthcoming. One hundred and nine of the 247 scholarships granted for training in public health nursing have been to ex-service nurses. If you are interested in public health nursing, why not take advantage of the Red Cross $100,000 appropriation for training nurses to fill this enormous peace-time demand?

TO DIAGNOSE PSYCHIATRIC PATIENTS

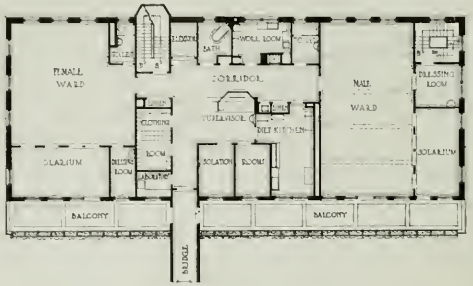
The United States Public Health Service will soon convene in Pittsburgh a board, consisting of Dr. A. J. Ostenheimer of Philadelphia, Dr. T. Diller of Pittsburgh, and the officer in charge of the Marine Hospital, to arrange for the setting aside of a section in the hospital for the diagnosis of neuro-psychiatric patients from the third district of the Service, comprising the states of Pennsylvania and Delaware.

STEVENS CLINIC SHOWS WELL CONCEIVED PLANS

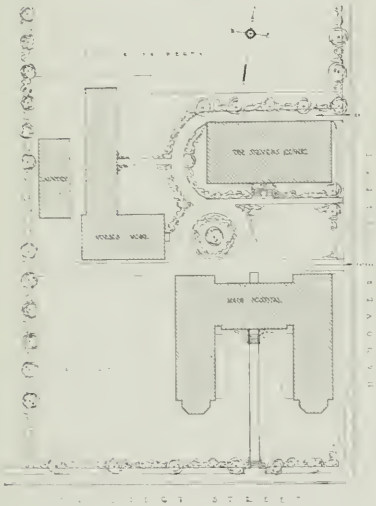
(See The Stevens Clinic, Fall River, Mass., by Warren C. Hill, MODERN HOSPITAL, July, 1920)



First floor plan of the Stevens Clinic.

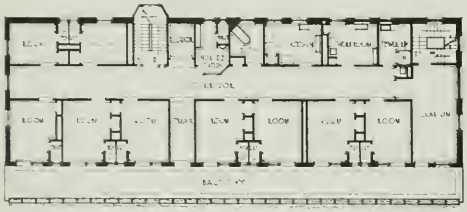


Second floor plan of the Stevens Clinic of the Union Hospital, Fall River, Mass.

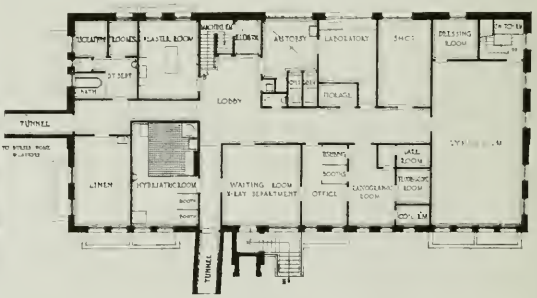


Block plan of the Stevens Clinic.

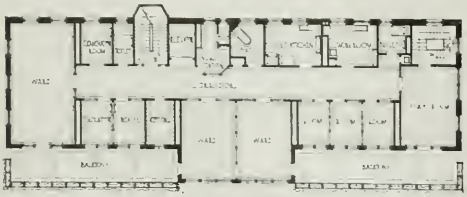
Front view of the Union Hospital, Fall River, Mass. Stevens Clinic stands just back of these buildings.



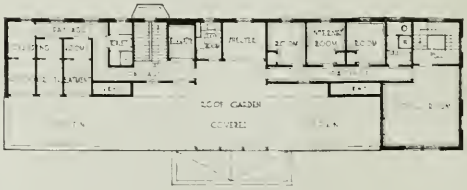
Third floor plan of the Stevens Clinic.



Ground floor plan of the Stevens Clinic.



Fourth floor plan of the Stevens Clinic.



Fifth floor plan of the Stevens Clinic.

HOSPITAL CONSTRUCTION PROBLEMS*

By RICHARD E. SCHMIDT, F.A.I.A., Richard E. Schmidt, Garden & Martin, Architects, Chicago Illinois

THERE are several problems arising in the design of every new hospital, which are planned in many different ways, and no one of which appears to be satisfactory to everybody. It seems, therefore, that these should be studied by hospital superintendents and experts to arrive at standards. One standard may not be satisfactory for the hospital of small as well as the one of large bed capacity.

Some of these problems are of comparatively recent origin, the location and size of the laboratory, for example. Both in the research and teaching fields, hospitals have materially widened their scope of activity in recent years. This country leads in the physical equipment of a hospital for the care of the patient from the nursing standpoint; it can fully as well lead in the development of the clinical sciences. To do this, modern laboratories must be provided.

The location of the laboratory should be convenient to the staff, coordinating with the other functions of the hospital, favorable to study and observation without disturbance or annoyance. Separate rooms for pathology, bacteriology, chemistry, and serology should be provided. By preference, the laboratory should be on the top floor, where the best light is obtainable. Obviously, to comply with these conditions the laboratory should be placed in a separate wing.

The mortuary or post-mortem table should be in the laboratory itself or immediately adjacent, where material can be properly and promptly studied. The refrigerator for the mortuary can be combined with the refrigerators of the laboratory.

A complete laboratory requires an animal operating room. Animal rooms must be specially arranged to prevent odor from permeating the laboratory and the hospital, and the travel of noise to the annoyance of patients. These are quite easily avoided if there is a separate laboratory building, but a separate building has many disadvantages for a hospital of moderate size.

Best Location for X-ray Laboratory

Hospital superintendents do not agree on the best location for the x-ray laboratory. There are good reasons for placing it close to the operating suite. There are also good reasons for placing it near the entrance to the hospital. If much out-patient work is done, the latter location is the better, for out-patients can come and go without disturbing the remainder of the hospital or carrying street dust and mud into many places. Hence it appears that the kind of work to be done should govern the location of this hospital service.

Opinions also differ in regard to the location of the surgeon's scrub room, anesthetizing, and the sterilizing rooms in the operating suite. There are advantages in having each one immediately adjacent and connected by doors to an operating room. This is possible if there is only one operating room; but impossible in a suite having several, unless the suite is built much larger than funds usually available will permit.

It seems advisable to arrange the kitchen and the floor pantries both for tray service and for distributing the food to the floor pantry steam tables in special containers. To accomplish this flexibility it is necessary to provide larger pantries than are often built, in order to have sufficient room for the installation of steam tables and to provide space for convenient circulation.

Importance of Sound Deadening Devices

The extent of sound deadening proportionate to a reasonable expenditure is a problem difficult of solution. It cannot, however, be ignored. Fire resisting construction, the only one permissible today, consists of hard and sound reflecting materials which propagate noise. Ordinary sound deadening materials are usually combustible and must be carefully chosen and applied judiciously if the fire resisting qualities of the building are not to be lowered to so great an extent that fire hazards are created. Sound proof doors in some of the special rooms, padded foundations for elevator machines, fans, and other motors, vaults for elevator controllers, door checks, and automatic closing devices for elevator doors should be installed in every new hospital.

Long corridors are virtually magnified speaking tubes which carry sound from end to end unless their length is broken by partitions and by means of carefully placed projecting pilasters and beams.

The illumination of corridors being important, it is necessary to build such partitions of a light steel framework and glass. The corridor floors should have inset runners of cork, linoleum, or mastic, but these bring about a considerable cost for maintenance and many superintendents who have had experience with different kinds of flooring prefer tile or terrazzo corridor floors and require the wearing of rubber soled shoes by nurses and other attendants.

The kind of flooring to be used is an ever present problem. If the means were unlimited, it would be a simple matter, inasmuch as there are excellent appropriate materials for every condition and situation. There are noiseless floors such as rubber tile or combinations of linoleum and magnesia composition, which are eminently suitable in corridors. Cork, tile, and specially treated wood parquetry floors laid in mastic on special foundations are beautiful floors for private rooms and wards, but all of these types of flooring cost considerably more than terrazzo, composition, mastic, linoleum, or cement; and it is an exceptional case if they are used over considerable areas. Inasmuch as their first cost differs greatly and methods of care and maintenance vary in different institutions, it is difficult to express a definite opinion.

These are some of the more important problems which arise during the designing of every hospital. It would be of great help to everyone working in the hospital field if they received careful study, analysis, and standardization, at least to some extent.

A combustion engineer should be consulted in all cases where boilers are found to be having difficulty, as the question of water treatment is one in which the employment of competent chemical and engineering knowledge is both absolutely necessary and highly profitable, and it would be far wiser to omit all forms of water treatment involving the use of chemicals rather than to undertake such without knowing accurately the composition of the water and of the material used to soften it.

*Address at the First Conference of the Wisconsin Hospital Association, Milwaukee, September 16 and 17, 1920.

INSURING HEALTH AND VIGOR IN A LARGE INDUSTRY

How much more important even than the pressing problem of labor turnover is the preservation of valuable human energy from impairment by accidents, many of of them preventable, in large industries in the United States. Yet every year a million employees do meet with accidents which mean enormous economic loss and hindrance to production. It is obviously expedient, therefore, for any large industry to take such measures as may minimize this loss and its consequent effects.

Among companies already entering the ranks of provident fore care is the General Electric Company, which has a systematized medical service installed in each one of its important plants. This includes, generally, examinations and an efficient hospital service. At the main plant in Schenectady, where the hundred large and fifty small buildings and the 22,000 men and women housed make a distinct community, an Emergency Hospital occupies one entire building. This hospital is the last stage in the evolution of medical attention beginning with small scale equipping of each shop with first aid supplies and instruction in care of the injured. Now, however, the hospital has a staff of chief steward, four assistant stewards, and a hospital clerk, all under the supervision of a leading surgeon of the town and directly managed by one of the surgeon's assistants.

The hospital building, which is largely furnished with glass and enamel and lighted by the overhead method, is white and sanitary and completely equipped with modern utensils and instruments. A darkroom in which to develop x-ray plates and a dental clinic are some recent additions. Fourteen hundred and fifty cases have been treated at the latter since August, 1919, and many x-ray photographs have been made of blind abscesses or growths from decays, which might otherwise have caused diseases of rheumatism, heart affections, stomach ulcers, and tonsillitis.

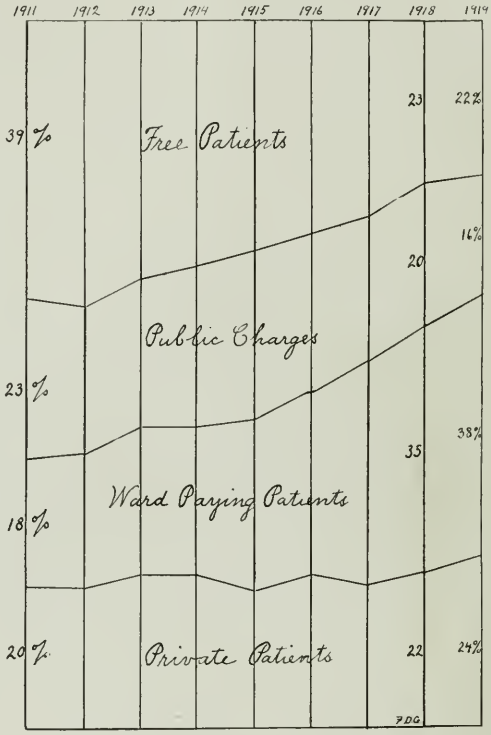
Every employee, before being hired by the company, is first given a medical examination to determine the possible progress of an unsuspected disease, to point out any susceptible condition, or to take measures for guarding the lives of associated workers. After absence from the works, employees are given a second examination on their return. At the hospital only surgical treatments are given; cases of actual sickness are cared for at home. Of these treated at the hospital, about 80 per cent are cuts, burns, and bruises; more serious injuries are taken to the city hospital. All this service is free; but its importance is impressed upon the mind of every workman by explaining the danger of blood poisoning or stiffening of the muscles and joints.

To make effectual all work of the hospital, a system of recording and following up cases has been formulated. The name, address, and other personal information of each injured man is kept by a clerk, who adds a brief description of the accident and transfers the record to a card index. A card indicating the time for subsequent treatments printed in English, Polish, Italian, and given to each employee.

A special service for the women employees is in charge of a woman physician, who is ever in readiness to answer sick calls to any part of the plant and who not only examines newly employed women but organizes all girls and women into health education units. In this way she can drive home effectually the facts of venereal disease and oral and sex hygiene.

PEOPLE PAY FOR HOSPITAL SERVICE WHEN THEY CAN

This chart, made by the United Hospital Fund of New York, seems to show that when people have money they are eager to pay the hospital for its services. This is an encouraging proof of the self-respect of people in very moderate circumstances. During the prosperous years

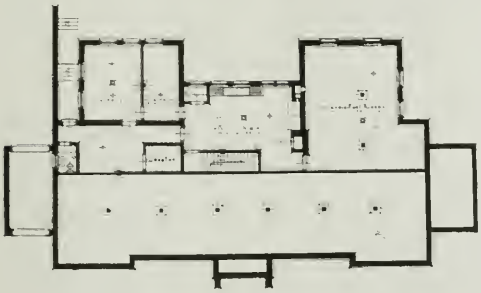


through which we have just passed, the number of free patients in 1919 dropped to 22 per cent, as against 39 per cent in 1911. The percentage of ward-paying patients rose from 18 per cent in 1911, to 38 per cent in 1919. Many of the ward-paying patients are paying only part of their expenses; in the case of public charges the city pays about half of the cost, while the hospital bears the rest.

MANITOBA ORGANIZES HOSPITAL ASSOCIATION

At a conference in November, which was called in conjunction with the convention of the Manitoba Medical Association, and attended by representatives from the various hospitals in the Province, the Manitoba Hospital Association was formed. Dr. George F. Stephens is the first president and Miss Martin, superintendent of nurses at the Municipal Hospital, is the secretary. The Association is to be organized along lines similar to those in the three other western provinces, and will comprise some thirty hospitals. A complete survey of the Province, so far as the hospitals are concerned, will be made this year.

ings of a willow pattern lend an air of cheerfulness to this reception or waiting room. The patients are brought from the *porte-cochère* either directly into the colored ward, or into the elevator and to the operating room on

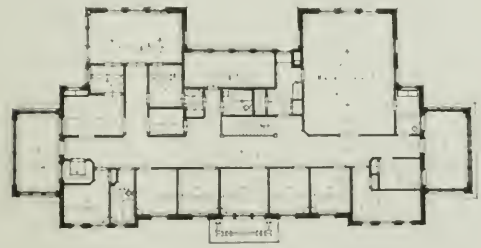


BASEMENT FLOOR PLAN

the second floor. The front of the building on this floor is occupied by four private rooms; the rear by a diet kitchen and dining room for nurses. A large linen closet, with steam pipes under the shelves to warm the linen,

opens onto the corridor, and the dumb waiter from the kitchen below runs up back of the linen closet and opens into the diet kitchen. A large porch balancing the *porte-cochère* is at the right end of the building.

Second Floor Plan. The operating suite on the second



floor at the rear left has an emergency dressing room as a special feature, because of the nature of the accidental injury cases treated. When patients are brought direct from coal or iron mines, coke ovens, furnace, or foundry, it is necessary to have a room where they can be thoroughly cleansed of the dirt incident to their work before being taken into the operating room. The operating room suite is equipped with the most modern fittings. On this floor there are eight private rooms at the front, two of which have private baths and all have lavatories. Sun porches at each end of the corridor are enclosed with glass in the winter; and a cool, shady sleeping porch is provided for nurses when resting off duty.

The success that the hospital has achieved since being opened in 1918 is very remarkable. It is regarded as an institution which must be supported. So-called "good business" is more and more taking into account the economic value of insuring against the physical depreciation of its employes, and is willing to support generously such an institution. The social elements of the town are also interested, so numerous "showers" bring to the hospital all kinds of delicacies and essentials from the housekeepers' stores.

No small city need be without a hospital of this kind. A little farsighted shrewdness on the part of doctors and business men will lead to the conviction that prompt care of employes injured in accidents means the reduction of loss of life and of time. Even those people who can afford the luxury of a large hospital can be benefited, and will, consequently, gladly support such an institution.

NEW YORK CONSTRUCTS HOSPITAL FOR WAR VETERANS

In answer to an appeal by R. G. Cholmeley-Jones, director of the Bureau of War Risk Insurance, the Governor of New York State, last month submitted to the extra session of the legislature a request for the appropriation of $3,000,000 for the erection of a hospital where mentally defective ex-service men and women can be properly cared for. By this appropriation New York comes forward in an effort to help the Federal Government in its care of World War veterans. There are about eight hundred and forty-five cases in New York which need attention. The plan is to make the hospital as little as possible like the general type of insane hospital. The architect has realized that the average age for ex-service men is under twenty-five years, while that of patients in a state insane hospital is about fifty-five years. There will of course be a great many more cures among the ex-service men than in the usual state institution,—recognizing this fact, there will be a receiving building, a hospital, and a convalescent building, which will have a home rather than an institutional atmosphere. The less serious and curable cases will be separated from the more serious and chronic ones. There will be a gymnasium and track, tennis courts, baseball diamond, football field, outdoor swimming pool, and every provision for restoring men to physical as well as mental health. New York, in the construction of this hospital, is taking a new departure which other states may be called upon to follow, for the Federal Government is without adequate facilities for taking care of the soldiers disabled in the World War.

HEALTH

"Oh, health, health, the blessing of the rich,
The riches of the poor—there is no enjoying the world without thee.
Who can buy thee?
Be then not so sparing of your purses, honorable people."

THE CHILDREN'S PAVILION AT THE SASKATCHEWAN SANATORIUM

The most recent addition to the Saskatchewan Sanatorium at Fort Qu'Appelle is the children's pavilion. This building was erected and equipped by the Daughters of the Empire of Saskatchewan, for the treatment of children affected with tuberculosis. It was formally opened in October by His Honor Lieutenant Governor Lake, and W. M. Martin, premier of the Province of Saskatchewan.

The building is of ordinary construction, stucco finish. It has a southern exposure and overlooks the beautiful Qu'Appelle Valley and Lake Echo. The main floor is divided by a corridor, separating the wards from the kitchen, dining room, toilets, etc., thus giving all the patients' quarters the benefit of a southern exposure.

The west half of the floor is given over to boys; the girls occupy the eastern end with a common recreation room between. Each section has three wards, two large and a smaller one, containing six and three beds each, and all opening out on the sleeping and sun porch. These wards are provided with wide doors so that the beds may be rolled in and out.

The recreation room is large enough for all "up" patients and is well lighted with windows and glass folding doors, which open out on the sun porch. This porch serves a double purpose in the pavilion, in that it may enlarge the recreation room during play hours and is used for heliotherapy during cure hours. The nurses' office occupies a space which overlooks the playroom and which is also within hearing distance of the sleeping porches.

Bath Units a Special Feature

One feature of this splendid building is the arrangement of the bath units which are situated at the back of the building at either end. This arrangement consists of a dressing room fitted up with open bath, toilet, and lockers for the smaller children, and adjacent to this is a small dressing room, with separate toilet and shower bath for the larger children. The fittings in these units are of a size suitable to the occupants.

The dining room is spacious and well lighted, being separated from the kitchen by a corridor which lessens the circulation of cooking odors.

The upper floor affords accommodation for an isolation suite and schoolroom, the latter occupying the space above the recreation room. This room is suitably lighted and ventilated. Its furnishings are of the most modern and hygienic design, all being movable so that it is possible to observe every sanitary precaution.

The building receives its light, heat, and water from the central power plant; but apart from that it is entirely self-containing. For a tuberculosis sanatorium built on the cottage plan, this is an admirable arrangement.

Front View of Children's Pavilion, Saskatchewan Sanatorium.

Plan of Main Floor, Children's Pavilion, Saskatchewan Sanatorium.

ONE STORY BUILDINGS PREFERABLE

Construction of state institutions is being resumed. One state announces the adoption of a plan for a state hospital of the old type, large buildings three stories high, and arranged in a beautiful figure, something that will be a monument to the architect. The cost of construction will be about $2,500 per bed, without fixtures, heating, plumbing, or furniture. The expenditure of this amount of money is no longer justified. A one-story building has been found to be more practical, and is certainly much cheaper. Such a building can be erected by the patients and employees of the institution, for there are no difficult architectural or engineering problems in connection with it. In a one-story building there are no stairs to climb, and there is no temptation to jump out of windows, so comfort and safety, as well as cheapness, are arguments for this type. Illinois is building such structures at a cost of $600 per bed complete. Before the war the cost would have been about $300 per bed. If the institution had done the work, the cost would have been even less.

AMBITION OF THE SOCIAL WORKER

The duties of the hospital social service worker are many; in aiding patients to return to normal life, in finding people who need the care and treatment of the hospital, or in helping the medical staff in its investigation, and innumerable other things which are constantly being done, the work is invaluable. A great writer has formulated the ambition of the social service worker: "To share and have part in the sorrows and difficulties of those who are passing through ordeals, will broaden their vision, temper their hearts, and there will come into their own life's work a vision of a useful life which will uplift, strengthen, and fortify the life of the unfortunate patient and the family that holds him dear."

SOME ESSENTIALS IN EFFICIENT HOSPITAL ADMINISTRATION

By M. T. MacEACHERN, M.D., C.M., General Superintendent, Vancouver General Hospital, Vancouver, British Columbia

Hospital administration today is an art and a science which should only be undertaken by a person especially qualified for the work, and who thoroughly appreciates its many difficulties.

The hospital administrator should realize that organization is as essential in a hospital as in any business. He should stimulate cooperation, for without it the hospital cannot do its best work. There are various means of doing this, by giving the staff good working and living conditions, and by holding round table conferences with them. He should foster efficiency and economies, and be ever vigilant about keeping up the hospital morale. He should take care of hospital publicity by sending out well-pleased patients. Newspapers, if used rightly, may be an important ally in developing hospital spirit in the community. These are a few of the things which make one realize the magnitude and complexity of the task which confronts hospital administrators today.

WE recognize hospital administration today as an art and a science, no longer a function to be accepted and exercised by anyone. It demands natural adaptability, study, and experience, but above all, a liking for the work, for the path of the hospital administrator today is far from being strewn with roses. Several qualifications are required which I have not time to enumerate, but will briefly summarize by saying that beyond being a good executive officer, he must have tact, patience, unceasing optimism and enthusiasm, with a very constructive thinking mind. Let the idea or the contention pass away forever from our minds that any person can administer so complicated an institution as a hospital, where it is constantly a matter of life and death, and where abnormal human beings and perturbed dispositions exist on every side.

The remarks which follow may not contain anything new to you, for I am only going to attempt to impress more strongly on your minds some important every-day facts. They are not theoretical but practical features, which you can carry with you back to your own field of activity. Indeed, every paper or discussion in our Association should set forth some practical points which we can take back to our respective hospitals.

At the outset let me impress you thoroughly with one fact, that the fundamental basis of our thoughts and our deliberations at all times, in this great international convention which we are holding this week must be, "How we can best serve the patient." He is the common bond of union between us all as hospital people, and our papers and discussions must all hinge on service to him. Hospital administrators must ask themselves how they can best cure the patient, or relieve his pain, suffering, and anxiety. Fix the patient in your mind first, last, and always, and measure the success of your administration by the service you can give him in your hospital. By doing this you will be rendering the best service to your community, your country, and to humanity.

Of the many essential features in hospital administration, we will first consider organization. It is generally accepted that any business, large or small, must have organization, by which I mean a distribution of the work and a correlation of the different phases of the business, such that a maximum degree of efficiency and responsibility is established and maintained. This is even more important in hospital administration. The work of the administrator naturally falls into three main divisions: medical, nursing, and business, a convenient division so far as we are concerned at the present time. In the organization of the personnel there are three main divisions: the governing body, the chief executive officer, and the staff. These are fundamental in our hospital organization. The governing body may be constituted in various ways and called by various names, but its functions or powers are usually the same. It is responsible for everything connected with the institution, and it is the body to whom all others are responsible. There must be a chief executive officer or one responsible head in the institution, accountable to the governing body, and standing between it and the entire paid staff of the hospital. Next to this chief executive officer come the divisional heads; the medical director, nursing director, and business director, all recognized experts in their respective lines. Their sections are further divided into well defined departments, with competent heads in charge and carrying the responsibility of their respective departments. Each of the departments must have its own staff, responsible through its head to the divisional head, and thence to the chief executive officer, who, in turn, is answerable to the governing body. In this way the work of any institution can be organized so that the administrator can at once put his finger on any trouble which may arise. Some of you will say that this does not apply to your hospital because it is too small. You are wrong, for your hospital, small or large, has the same functions to perform and can be organized in the same way; your departments may have to be grouped on account of a smaller personnel, but the fundamentals of this organization should be present.

Cooperation is Essential

The war has stimulated cooperation in all things; we are unconsciously becoming more communal and less individualistic. I am a strong believer in cooperation. Always try to make everyone on your staff feel that he is one of the cogs in the great wheel of the institution, and by the performance of his duties, however humble, he is helping the hospital in its service to needful humanity. Any person who cannot begin and end each day's labor with unbounded interest should be eliminated from the staff. Harmonious cooperation in and between departments can best be established when certain conditions exist. The staff must have comfortable living and good working conditions, wholesome food, some social life, recognition for service, and in general, good treatment. I have found that it always pays to give a friendly word or nod

in passing, a word of approval or encouragement, or to consult members of the staff along their own particular line, thus recognizing their ability. Participation in the social life of the staff is commendable; you will enjoy such occasions as dances, picnics, excursions, concerts, etc., just as much as they do. Show your staff you have an interest in them and, indeed, they should be of such a caliber that you not only have an interest but a pride in them.

The greatest means I have of promoting cooperation is found in our fortnightly round table conferences, when all the heads of departments assemble for an hour. I preside at the meeting and we discuss matters pertaining to efficiency, economy, and better working of our various departments. We ascertain if there is good cooperation, if there are any omissions or overlapping. Everybody must be frank and open-minded, and all controversial matters must be laid on the table and discussed. Any department may be subjected to criticism of a constructive nature. At this meeting we include: the director of medical records, director of nursing, managing secretary or business manager, director of the surgical department, housekeeper, dietitian, foreman of works, chief engineer, foreman of the laundry, chief orderly, director of pharmacy, director of physiotherapy, director of laboratories, director of anesthetics, director of radiography, chief admitting officer, purchasing agent, and other heads of departments. The meeting is a clearing house for many troubles, and as it is held during working hours, attendance is compulsory. Each member is called on, in turn, to bring anything before the meeting, after which follows a general discussion. This is usually a very interesting hour to us all.

Suggestions for Increasing Efficiency

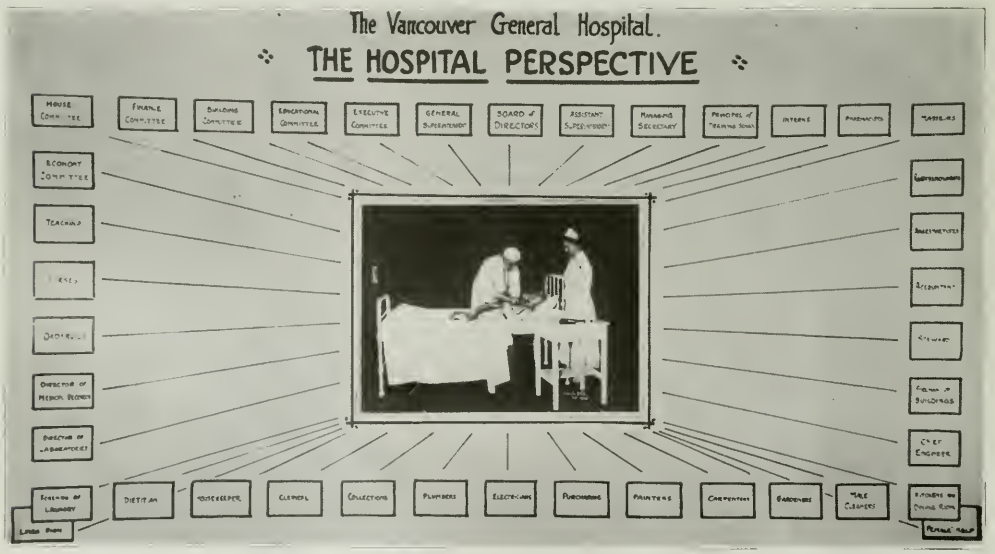
Today throughout the land, the profession and the public demand efficiency in our hospitals. Hospital standardization has rapidly spread over Canada and the United States, and has already greatly increased the efficiency of our institutions. Efficiency is measured, in the last analysis, by the service rendered to the patient, and it means that certain conditions must be fulfilled: first, the institution must carry a capable and expert personnel, working harmoniously and cooperatively; second, the institution must have an up-to-date equipment and all facilities for diagnostic and special treatment; third, the institution, through organized machinery, must keep an intense scrutiny over all the work done, so as to make sure that the patient is securing the best results.

I might discuss hospital standardization, but you are probably all familiar with it. But, in short, all work must be well done, and the hospital must give a complete service, carefully scrutinized. The efficiency of your hospital is not measured by surplus or low *per diem* cost, but by service. To hospital administrators let me say one word in particular. Your organization should be so complete that you can at once detect any weakness, and your work so arranged that you can spend the greater part of your time using your brains for the institution, "doing research for your own hospital." There are no two hospitals alike and we cannot lay down a policy that will fit them all, but let us each take whatever steps we can to make our institutions thoroughly efficient.

The proper investigation of complaints concerning incompetent work or final results is essential today in a hospital. There will always be complaints, and their investigation and disposal is of vital importance. Here are a few essentials in this matter: have an organization such as to abolish cause for complaints, but have machinery to investigate them should they occur; have all complaints in writing if possible; receive and investigate them with an open mind; give all concerned a fair opportunity to state their case; and, after carefully weighing all evidence, render a definite verdict in writing.

Many complaints made are unfounded, and usually the party making them will refuse to put them in writing; such cases do not require investigation. Frequently generalized complaints are made, always try to bring these down to specific occurrences.

To discover the incompetent work done in the hospital,

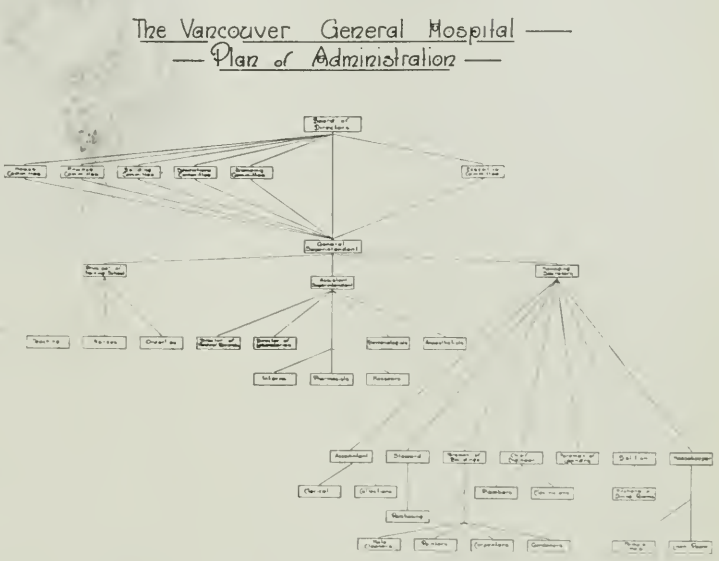


All hospital service must focus on the patient, the common bond of unit between all departments in their service.

there must be an analysis of all the work. From time to time instances will be revealed where the best results have not been obtained. The cause of such an occurrence must be found. Is the doctor, the hospital, or the patient to blame? Investigation should follow. All data secured from the various sources should be considered and weighed by the hospital authorities themselves. If necessary, before a conclusion can be reached, the question should also be submitted to a committee.

The world today is greatly unsettled in mind, and generally speaking, people are more critical and less appreciative than they were formerly. Certainly our patients are much more difficult to attend, and discipline, than they were a few years ago, and hospital administrators find it harder to maintain the morale. Patients expect more attention and more privileges. Probably a large number of you are having to meet such problems as smoking and visiting privileges—two things which make trouble for the administrator. Smoking has become such an obstinate habit that it has to be recognized and allowed in wards today, regardless of the fact that it is a menace in every respect, as far as the hospital is concerned. It immeasurably increases fire hazard, is annoying to the patients, and increases the work of the nurses. The only solution I have found for this is to allow smoking at certain hours, for instance, one hour after each meal. Visiting privileges in a large number of hospitals today are causing trouble. In many cases it is detrimental to the patients, and in all cases it wastes the nurses' time. Experience during the influenza epidemic, 1918-1919, in our own hospital, revealed interesting results. During two months, more than two thousand patients, with various conditions other than influenza, were treated in the main hospital, and were absolutely and entirely deprived of visitors. It is undoubtedly a fact that the patients, in spite of a much reduced medical and nursing force, made far better and quicker recovery. This was evidenced by shorter stays in the hospital, fewer complications, and much better results in every way. Further, in spite of the fact that influenza was raging in our city and we had one thousand influenza patients in another section, not one case of influenza developed among these patients. Undoubtedly the reason for this was the fact that the strictest precautions, rules, and regulations were instituted, and lived up to, even to the extent, on one occasion, of calling on the police to enforce them. Visitors bring in to patients, in spite of the vigilance of the nurse, injurious articles to eat, they disseminate infections, and at times disclose to patients information detrimental to their mental comfort. On the whole the disadvantages overshadow the advantages so much that visiting should be restricted in every hospital, if the best interests of the patients are to be considered.

Now we are interested in knowing what steps to take to improve hospital morale. I would suggest the following for your consideration: first, make the surroundings in your hospital attractive and "homelike"; second, introduce occupational therapy in your hospital; third, provide music for the patients; it has been found to be of



Hospital organization showing the scheme of division of duties and authority.

real benefit; fourth, provide for the establishment of a library in the hospital; fifth, attend, where possible, to the patients' needs, whims and desires; sixth, develop the human interest in and sympathy with the patient, getting away from the cold routine; seventh, treat your staff well; eighth, provide the doctors with efficient equipment; ninth, treat the public in a courteous and obliging manner.

These suggestions, with several others which will come to you, if carried out, will make your administration not only more pleasant but more profitable.

Practical Economies Specified

It is generally admitted that the hospital is a place where there can be great waste. In this paper I will not attempt to cover the subject in its entirety but will mention only a few of the more common sources.

Time and energy.—In many of our admirable institutions, owing to the architectural design, innumerable extra steps are required, when, if foresight had been used in planning, the wards and service room would have been in close proximity, with all administration concentrated, thus saving much time and strength. Too often, also, we find inconveniences, or lack of the necessary facilities with which to work.

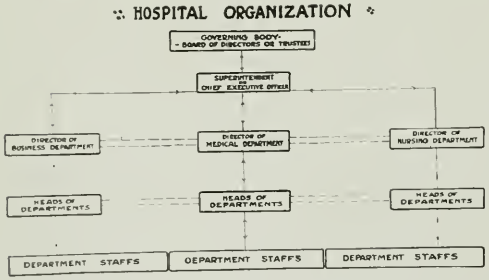
A proper and systematic division of duties in an institution is a great economy. A skilled staff should not spend its time and efforts on work which can be done by unskilled labor. We see nurses doing work which should be done by maids or helpers, so that the nurses would be free for the care of the patient. Some hospital superintendents waste time by not having a staff to do their detail work. I know a superintendent in a fairly large hospital who does not even have a stenographer, and therefore has to spend time typewriting when he should

be using his brains for the institution. Fortunately, the labor-saving devices in the past few years have effected a marked economy. There are now on the market such labor-saving machines as apple peelers, meat cutters, bread cutters, choppers, dish washers, butter moulders, laundry equipment, adding machines, etc. These devices should be used in the hospital as much as possible.

Money.—Money is often lost by inefficient business methods. The commercial side of the hospital must be kept efficient and not be overshadowed too much by the medical side. The business department should be required to provide an efficient system of investigation and collection as well as a system of accounting that will not only pass the auditor, but will give an accurate knowledge of the costs of the hospital.

Equipment.—Economy can be effected in the purchasing, care, and use of equipment. Some of the equipment on the market today is not practical for hospitals, and only such as is standard should be purchased. Expert opinion should be obtained when necessary to guide you in buying only the best. Hospital equipment gets hard usage, so nurses, interns, and the staff generally, should be specially trained in its care and use; also repairs and renewals should be made at once. This may necessitate having a permanent staff of trades such as painters, carpenters, splint makers, etc.

Supplies.—In the purchasing of supplies familiarity



Hospital organization showing the fundamental elements in the organization and relations of the governing body, the chief executive officer, the divisional heads, and heads of departments. The dotted lines indicate co-operation and the arrow the lines of communication between the departments.

with prices, qualities, and standards is necessary. Large hospitals should have a purchasing agent, who must be reliable, honest, and experienced, or many thousands of dollars may be lost annually. All supplies should be duly requisitioned by the various departments, and when they are secured, invoices and requisitions should be checked. Contract buying in most instances is preferable to the open market, as tenders invite competition and usually obtain better results.

All materials should be kept in a store, systematically arranged and readily accessible. Indeed, hospitals would do well to adopt the army system and have a quartermaster in charge of supplies. There is a vast difference in the way people use materials; some, I believe, have a conscience in the matter of economy, but I am afraid many have not. The staff is often extravagant, especially in the use of dressings and drugs. Investigation of these two items in our hospital at one time revealed that economy in their use would mean a saving of thirty-three and one-third per cent. This has led to the putting in force of more stringent methods, including the use of substitutes where money can be saved and efficiency maintained.

Meetings of heads of departments every two weeks to discuss the work of the various departments and to ascertain if there is any lack of co-operation, any omissions or overlapping.

The reclamation of supplies for continued use also concerns us, particularly that of dressings, linen, blankets, paper, and rubbers. There are many processes known for the reclamation of dressings, nearly all can be reclaimed in some way. One might well separate them into two lots, outer and inner, or, unsoiled and soiled. The former can be readily sterilized and re-used, but the latter must be washed out, re-sterilized, and go through an extensive process.

Unmendable linen articles can be cut up and used for something else, as, for instance: a much used table cloth may make a few serviettes, or bath towels may make face cloths, etc. All that cannot be reclaimed should be sold to the rag peddler.

In the matter of drugs, prescriptions may be made more uniform if the hospital pharmacopeia is used. The number of doses should be specified, instead of leaving it to the pharmacist to decide. Carelessness in writing a prescription should be avoided, as the omission of the quantity required, the ward, the date, or the name in full, causes the pharmacist unnecessary loss of time in tracing up these details.

Economy in Food Important

Experience and a knowledge of prices and quality are as necessary in buying food as in buying supplies. The

Garbage tins should be inspected daily by a reliable authority—perhaps, as above, by the assistant superintendent.

food should be plain and substantial, retaining its natural flavor or taste as far as possible. The value of a good cook cannot be too strongly emphasized. The service of the food in our wards is of vital importance, and may really be the source of complaint more often than anything else in connection with the department. The subjects of complaint usually are that the food is cold when served, of poor quality, or unappetizingly served. Any of these things are very detrimental to the success of the hospital. In our institution we make the dietitian responsible for the whole food problem, for quality, for preparation, for distribution, and for service. As she cannot be in several places at once when food is being served, the head nurse is responsible to her for the service. Generally speaking, we use a selective service for our patients. Their tastes are consulted and initial helpings, not too large, are served. All left-overs, trimmings, or waste should be taken care of by some economy device. In our hospital we carry out the following economies:

FAT—

(a) Trimmings used as substitutes for butter and lard in hospital cooking; balance sold to a restaurant.
(b) Roast trimmings cleared and sold in five-pound tins.
(c) Scraps used for the manufacture of green soap and hospital laundry soap.

From the above sources the monthly receipts are from $50 to $125.

BREAD, BREAD CRUMBS AND CRUSTS

(a) Used for food for laboratory animals.
(b) Sold at one-half cent per pound for chicken food.
(c) Used in kitchen for crumbing and with wheat flour for crumb muffins.

VEGETABLES—

The outer leaves of lettuce, celery, and green onion tops, are put into the stock kettles for vegetable soup.

APPLE PEELINGS—

Made into jelly for use in cooking.

ORANGE AND LEMON RINDS—

Candied, principally from oranges used in providing morning orange juice for children.

JAM TINS AND MARMALADE TINS—

Saved and returned, for which we get an allowance of sixty cents per dozen.

The above are only a few of the innumerable economies which you can effect in your own hospital by organized

Linen and rubber goods conservation and reclamation. Discarded rubber covers (1) from the operating room pads, are made over into covers for sand pillows (3), knee pads (4 and 5) for cleaners. Discarded table cloths (2) are made into serviettes (7), and balance unfit for this purpose used for dusting cloths (6), or sold to rag dealer.

effort throughout your departments. By all means be careful about your garbage tins. Inspect them regularly yourself. Here is where you get your key to wastage, especially in food and dressings. There are two classes of garbage around an institution which may, for convenience, be called dry and wet. The bulk of the former is from the wards, and is burnable, and the bulk of the latter is from the kitchens and is saleable for food for hogs, chickens, etc. In our own case, after every possible extraction and reclamation, the Chinaman pays us $150 per month for the remainder.

In leaving this subject of practical economies, let me recommend that, when you go back to your institutions, you look them over for every possible source of wastage, and put into practice every possible measure for conservation and reclamation.

The best publicity you can give your hospital is to send your patients out well pleased. This means competent care, a happy stay, and a good result. It may be only a little thing; a word or a little act of kindness, that will win the patient as a warm friend. On returning home his friends and neighbors all hear the hospital story, whether good, bad, or indifferent, and if it is good, the hospital will get the best possible publicity. If you can develop public confidence in your hospital you can enlist the sympathy of the public for any support you want. Use every opportunity possible to bring and keep your institution before the public, perhaps by inviting the public to visit the hospital on a certain day. One of the greatest successes we have ever had in this way was what I used to call our "New Year's Day reception," when for a few hours in the afternoon we opened our hospital to the public, having a well laid out itinerary, with demonstrations in each department. This became so popular that we were obliged to drop it three years ago, as we could not handle the crowds. Secure the cooperation of the press at all times. It is a medium of educational publicity, and information from the hospital of general interest can be given to it, so long as private matters or confidences are not disclosed. My experience with the press has been of the happiest nature, and during my administration in Vancouver I believe many hundreds of columns have been devoted to the hospital work in its various phases, all of which has helped greatly to develop the hospital spirit in our community.

During the past year I have issued various hospital bulletins containing interesting data, to familiarize the patients and the public with hospital work. Lantern slides and "movies" render great service in publicity.

It is important that the hospital show itself always ready for service. Four years ago the government of Canada asked us to take three hundred returned soldiers. We said we would, although we had neither buildings, equipment, nor staff. In three months we were ready with a new hospital fully furnished, and equipped for three hundred and twenty soldiers. In the influenza epidemic the city asked us to handle the situation, from an institutional standpoint. This was done in short order and one thousand beds supplied with equipment and staff. Make your hospital measure up to its community obligation, for in so doing you are best serving the patients and the citizens.

In conclusion, allow me to apologize for attempting to discuss so many large subjects in one paper. Indeed, it is quite apparent to all that each of the questions raised in this paper would be subject matter for a paper or address in itself. However, ground is broken for discussion, and I hope that many practical benefits will be derived therefrom.

Happiness lies first of all in health.—George William Curtis.

When a man assumes a public trust he should consider himself as public property.—Thomas Jefferson.

AMERICAN HOSPITAL ASSOCIATION ISSUES SERVICE BULLETIN ON STERILIZATION

THE American Hospital Association recently issued the following service bulletin to its institutional members:

Recently a manufacturer of sterilizing controls received a letter from a lawyer, stating that the daughter of his client had lately died in a given hospital from postoperative infection, and asking if this hospital was purchasing their controls. The letter also raised the question as to whether hospitals are ordinarily giving the matter of sterilization sufficient care and attention to meet the "reasonable precautions," as intended by law, the lack of which leaves no protection from damage suits.

This question each hospital must answer as to its routine, and must recognize that the care used is all that protects them from suits, from damages arising out of postoperative infections, which are likely to occur at any time.

How Faulty Sterilization Occurs

Assuming that a bulletin upon this subject might be of value to some institutions, the question has been investigated and the following facts established:

From the manufacturers of sterilizers we have learned that faulty sterilization occurs, to their knowledge, in two ways: first, the sterilizers becoming so out of order that the steam does not reach the inner chamber. One case was reported wherein it was certain that no steam had reached the inner chamber of the sterilizer (daily used) for over a year. Second, misuse of sterilizers through ignorance of the instrument and the principles of sterilization. Several reports were presented in which the steam has been curtailed in amount or entirely cut off from the inner chamber "because it wet the dressings." This had been done by the nurse or orderly, entirely on his or her own responsibility, yet it is doubtful if this would in any way protect the hospital in case of suit, as "reasonable precautions" to protect the patient had clearly not been taken.

With the recognition that the institution is strictly responsible for the effectiveness of the sterilization, and that errors inviting damage suits are now occurring, the following principles and methods are presented. All these will be found in routine use in some hospitals.

Principles and Methods Enumerated

1. An ordinary recording steam gauge, if not already a part of the equipment, should be connected with the inner chamber of the sterilizer. These gauges are inexpensive, obtained anywhere and easily attached. They are kept locked and the paper dial changed by a responsible person every twenty-four hours. The record is accurate as to the steam and vacuum pressure on the inner chamber throughout the day. One may discern at a glance if the sterilizer is in perfect order, if each sterilization has been proper, and if the steam pressure and vacuum drying were continued for adequate time. It prevents the hurrying of the last load, etc. The daily records should be filed in the superintendent's office, and inspected as part of the routine.

2. Sterilizing controls, which are now quite generally used in hospitals, are beyond any question reliable in determining whether sterilizing temperature surrounding the control has been attained, and maintained sufficient time to insure sterilization. With these controls it is possible to definitely determine whether your routine can sterilize the middle of the package of three or six sheets. The difficulty of heat penetration into compact packages can be studied by these controls, and the routine of the hospital in the preparation of packages for the sterilizer can be made such as to insure heat penetration and make sterilization certain.

3. The above precautions will make it certain that any package which goes through the sterilizing process is absolutely sterile. One must, however, protect against contamination after sterilization and be certain that every dressing and article used as sterile has been through the sterilizing process.

4. Contamination of an unopened package after sterilization is possible only through insufficient covering and exposure to dust before drying. Care must be used to insure against thin wrappers or wrappers with small holes—two thicknesses of cloth outside of the dressings are much better than one. Unless the vacuum of the sterilizer is in good working order, dressings will come from steam sterilization too wet for immediate handling. This can be corrected by completely shutting the steam from the inner chamber at the end of sterilization, and leaving the dressings inside the sterilizer with the door open and the steam pressure on the outer jacket until dry.

Making Sure of Sterilization

5. In the preparation and handling of packages for sterilization there are many possibilities of a package not sterilized becoming mixed in with sterile packages. It is possible to determine whether a package has been actually through the sterilizing process or not when it is opened at the operating table in the following way: place inside each package a slip of paper on which the date on which the package was prepared for sterilization has been written or stamped in any indelible, silver ink which writes red (obtainable everywhere). These inks will remain red wrapped in a package of linen almost indefinitely, if not sterilized. The heat from sterilization turns the color to black and the moisture causes the ink to run in the paper enough so that a slip blackened by a steam sterilization can readily be distinguished from a slip blackened from dry heat or from long light exposure. This method is quite inexpensive but satisfactory. The following story was obtained from a hospital using these slips, and where it was first supposed that it was impossible for non-sterile packages of linen to get mixed with the sterile. About one non-sterile package a month, as shown by red slips, is being opened in the operating room, and it can never be explained how it got mixed in. At one time a whole load of non-sterile packages was put in the cupboards with the sterile linen, and detected and sorted out, as opened, by the slips. While this may seem surprising to some, it should be said that the nurses and operating room attendants of this particular hospital clearly rank among the very best in this country. Therefore, it is likely that slips in the handling of packages are occurring in many hospitals. This can and should be detected before damage is done, by the use of these silver inked slips, or perhaps by some other devices. However, no devices other than the sterilizer control first mentioned, or these paper slips with the silver ink, have come to our attention.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
122 W. 85th Street, New York City

CENTRALIZATION OF TEACHING IN SCHOOL FOR NURSES

BY JEAN I. GUNN, R.N., TORONTO GENERAL HOSPITAL, TORONTO, ONT.

IN PRESENTING the subject of centralization of teaching in schools for nurses the discussion will be limited to an experiment being carried on at present in the city of Toronto. The same system may be in operation elsewhere, but it has not been possible to secure any definite information of similar experiments in other localities.

To those who are not familiar with the city of Toronto, a brief outline of the hospital facilities may be of interest. There are, in all, eleven public hospitals besides the smaller private hospitals. Several of these public hospitals are affiliated with the University of Toronto and are therefore teaching institutions for the Medical School, while others have no connection with the University. All, however, conduct training schools for nurses ranging in size from 250 to 12 enrolled students.

Before the recent war these schools carried on their work quite independently, with no interrelationship. Then with the war came the shortage of medical men, not only in private practice but particularly on the University staff and the staffs of the different hospitals. All were overworked and new conditions in our training schools were consequently brought about.

As time went on we found these conditions. Medical men already teaching in the University were teaching the same subject in two or three schools for nurses. In one case, which was typical, a lecture course covering eight hours was being given by one surgeon in three schools, which meant twenty-four hours instruction instead of eight. Conservation of the instructor's time was, therefore, one of the outstanding reasons for the organization of a central teaching course. Another difficulty was the inability of the smaller schools to teach the subjects as outlined by the curriculum of the Graduate Nurses' Association of Ontario. These schools were expected to meet this standard to make their graduates eligible for membership in professional organizations. Under the conditions existing at that time it was not possible for them to do so. A busy physician might make the time to teach a class of forty to seventy students, but would not feel that he could spare the time to teach a group of four. Yet these four students had to be taught.

In 1917 it was, therefore, decided to make an effort to centralize part of the teaching, particularly the lecture courses given by physicians. As none of these schools had a class room sufficiently large to accommodate the students, the University of Toronto was approached and a class room in the Medical Building was provided. The University, while extending this courtesy to the training schools of the city each year, has no connection with the lecture course, but simply provides the necessary class room.

Committee of Superintendents Centralize Certain Teaching

A committee was organized which consisted of the superintendents of nurses of the different schools. This committee has, since its organization, been responsible for the arrangement of the entire course. In regard to instructors the committee decided to leave the appointment of instructors in the different lecture courses to the medical faculty of the University. Each year the nurses' lecture courses are assigned in this way to some member of the teaching staff. While the schools have no direct affiliation with the University, the teaching in these subjects is planned for unofficially by the medical faculty.

Of the eleven schools, nine entered their students in the centralized course. It has not been possible to arrange as yet for the teaching of all theory in this way and the individual schools continue to teach certain subjects. The following subjects are taught in the centralized course: in the first year; general medicine, eighteen hours; bacteriology, twelve hours; hygiene and sanitation, twelve hours; in the second year; surgery, twelve hours; gynecology, eight hours; orthopedic surgery, six hours; infectious diseases, ten hours; mental diseases, four hours; in the third year; obstetrics, eight hours; pediatrics, twelve hours; medicine, six hours; surgery, four hours; ear, nose, and throat, three hours; eye, three hours.

In addition to the above, the eleven schools entered their junior students for a course in chemistry arranged and given by the Central Technical School. This course covers a period of three months, with one hour class and one hour laboratory work weekly. This has been of great assistance to all the schools, as none were properly equipped to teach chemistry. The centralization gave the students the advantage of expert instruction and the use of a laboratory which could not possibly have been duplicated in any of the eleven training schools.

Another course into which all the schools are cen-

tralized is offered by the University of Toronto. This course in public health nursing is arranged by the University especially for the student nurses, to give them some idea of the scope of public health and social service work and to familiarize them with the many fields of work. One hour a week during the senior year is given to this course. In connnection with it the Department of Health of the city receives the student nurses for a period of two months field work. This practical work is of great value to the student, as it gives her an opportunity of associating the theory taught with the conditions that exist and the means adopted to remedy them. The time is short, but long enough to impress the student with the need for public health activities.

Examinations Made Uniform

The examination in chemistry is given by the staff of the Central Technical School, and the University of Toronto gives the final examination in public health nursing. It has not been possible yet to arrange a system of credits in the University for this work, as the course taken is a specially arranged course and not one regularly arranged for full time students. In all other subjects the examination is set by the instructor and the papers are read by an examining committee appointed by the training schools. The examinations are written and are held in the different schools at the same hour.

Advantages of Centralization Outweigh Disadvantages

Every system of education has its advantages and disadvantages. One of the outstanding disadvantages of this system of centralization is the fact that the students are absent from the ward longer than when the teaching was done in the individual school. The student has to have extra time to enable her to go to and from the University class room. While this is a disadvantage from the standpoint of the direct administration of the nursing of the hospital, it is rather an advantage to the student. She has a walk in the fresh air and a change of atmosphere which cannot fail to be of direct benefit to her.

Another disadvantage is the fact that the students are taught in a much larger group and do not receive the same individual help and instruction which is possible in smaller classes. To counteract this defect, many of the schools arrange for short conferences on the lecture given, or hold bedside clinics in the wards in order to link up the subject taught with the actual daily care of the patient.

The advantages naturally fall into three classifications: those which are general to all schools; those especially relating to the larger schools; and those relating to the smaller schools.

Of the general advantages, the most striking is the better teaching in these subjects. The instructors give careful preparation to the subject and are experienced in teaching, which unfortunately the physicians who are often called upon to assist the teaching of student nurses are not. The majority of nurses of today can easily recall lectures in their course that had received no thought and consequently no preparation on the part of the physician. Another advantage is the promotion of uniformity of teaching and standardization of the curriculum of the city schools. A spirit of competition is created by the system of uniform examinations. Some students who do not feel a great deal of anxiety concerning their individual standing, curiously enough, have a certain interest and pride in the standing of their class and training school. It is also beneficial to the student to meet students from other schools and to obtain thereby a broader outlook.

From the standpoint of the hospital, the centralized system of education has brought about a close cooperation between the schools for nurses, linking them up with a common interest and undertaking.

From the standpoint of the physicians and surgeons who for so many years have given so freely of their time in nurse instruction, the centralized teaching is a great saving of time. So frequently the same physician or surgeon gives the same course of lectures to different groups of nurses, and is thus forced to cover the same ground three times or even four times during a term. In these days when everyone's day is more than full, the economic value of centralized education cannot be overlooked.

The advantages specially applying to the large schools are not as vital as to the smaller schools. The larger school is always in a position to arrange proper education in all subjects for its students, but this system gives the larger school an opportunity to assist the smaller school to meet the same standard, which would be impossible for it to meet otherwise. The chief advantage, therefore, is the knowledge that the large school is not limiting its activities to its own field, but helping to meet the need of the community where all hospitals and students are necessary for the care of the sick.

The advantages to the small school are very apparent. It is provided with a means of teaching its student nurses according to the approved curriculum. The students know they are receiving the same instruction as the students in the large schools and that they must reach the same standard, for the examinations are uniform.

Single Director of Nurse Education Would Facilitate Teaching

The future of this plan of teaching has still to be decided. The committee feels that the appointment of a director of nurse education for the hospitals of the city is most essential. This innovation will probably be the next development. If such an appointment is made, the expense will be shared by the schools in proportion to the number of students enrolled. A director is really essential to link up the teaching in the lecture course with the supplementary teaching in the individual school. At present this connection is left to the school and no uniformity results. Another reason for this appointment is to save the time of the hospital executives, as nine or eleven schools, as the case may be, send a member of the executive staff with the students to each lecture. One such person is sufficient if she has some connection with each school to enable her to plan the necessary supplementary work.

One of the changes that the committee is hoping to effect is to pay the instructors of this course. At present the physicians and surgeons give their valuable time voluntarily and would continue to do so very willingly. In fact, the hospitals could never adequately pay these instructors for their time; but if some basis of payment were adopted, the schools would be much more independent and self-respecting, as they would at least have made an effort to meet their obligations.

University Education for Nurses Final Goal

The last dream of the committee will perhaps remain only a dream. It is that some time in the future the education of the student nurse in our city schools will be undertaken by the University of Toronto in close cooperation with the board of managers of the hospitals. The hospital can be the working laboratory for the student nurse as it now is the working laboratory of the student in medicine. The medical school of any university is

very closely affiliated with the hospitals. The carrying on of this branch of education in any university is directly dependent on the cooperation and good-will of the hospitals in its vicinity.

Why should this cooperation and good-will be as one-sided as it is at present? The hospitals have fields of practice that the school of medicine needs for its existence and development. The universities have fields of medical knowledge very much needed by the hospitals for their student nurses. Is it, then, not logical to expect this affiliation between hospital and medical school to extend to both groups of students? The rapid development in public health work throughout the United States and Canada shows clearly that the community demands and expects to receive as much help and advice in disease prevention from the graduate nurse as from the graduate in medicine.

This principle applies not only to the public health field. The scientific treatment of disease in our hospitals depends largely on the intelligent cooperation of the nursing staff. The day when the nurse's responsibilities were limited to the actual bedside nursing care of the patients is long since past. Is it, then, logical for the medical faculties of universities, the federal, state, provincial, and municipal governments and the public to expect expert nursing service in all branches of medicine, curative and preventive, when the best facilities for the nurse's education are withheld? All other branches of teaching are finding a place in the educational efforts of both countries. Why not the profession of nursing?

VASSAR TRAINING CAMP FOR NURSES HOLDS ENTHUSIASTIC REUNION

VASSAR College was again, on November 26, 27, and 28, the camping ground for the reunion of the Vassar Training Camp. This was the realization of a dream long cherished by its graduates. Out of the 435 enthusiastic college women who came together at Vassar's classic halls that memorable summer of 1918, 169 have finished the two years in training schools for nurses throughout the United States, and of these, about 120 enrolled for the Camp's first reunion. With them met a few members of the Training Camp faculty; superintendents, or representatives from the training schools who affiliated with the Camp; and others interested in problems of nursing.

An outline of the program of the three days follows:

On Saturday afternoon there was a discussion on the respective limits of student government and authoritative control in the training of pupil nurses, the leaders being Miss Margaret Canington, University of Missouri, graduate of the training school of the Rochester General Hospital, N. Y.; Miss Mary Millman, University of Toronto, graduate of the training school of Bellevue Hospital; and Miss Helen Wood, R.N., superintendent of nurses, Barnes Memorial Hospital, St. Louis, Mo.

After a six o'clock dinner, brief speeches were given by Miss Adelaide Nutting, R.N., professor of nursing, Teachers' College, Columbia University; Dr. Edward H. Hume of the Hunan-Yale Medical Work in China; Miss Martha Wilson of the Central Council for Nursing Education, Chicago.

At eight o'clock there was a public meeting in the art lecture room in Taylor Hall, presided over by President Henry Noble MacCracken. The speakers were Mrs. John W. Blodgett of Grand Rapids, originator of the Training Camp for Nurses; Professor Charles Edward Amory Winslow, professor of public health, Yale College of Medicine, professor in the Vassar Training Camp for Nurses; Major Julia C. Stimson, dean of the Army School of Nursing and formerly in charge of the nursing staff of the American Expeditionary Force in France; Professor Herbert E. Mills, dean of the Training Camp for Nurses.

At nine-thirty a reception was held in the art galleries of Taylor Hall.

On November 27, in the morning, a discussion was carried on of how the correlation of theoretical and practical work in training schools for nurses can be improved. The leaders were Miss Priscilla Barrows, Wellesley College, graduate of the training school of the Presbyterian Hospital, N. Y.; Miss Leila Truick, University of California, graduate of the training school of City Hospital, New York City; Miss Carolyn E. Gray, R.N., assistant secretary to the Committee on Nursing Education, formerly superintendent of nurses, City Hospital, New York.

In the afternoon a discussion was arranged on how can the entrance of the right kind of young women into nursing be encouraged by an enrichment of the life of the pupil nurse, intellectually, recreationally, spiritually and in its relations to the outside community? The leaders in the discussion were Miss Alberta E. Chase, University of Michigan, graduate of the training school of University Hospital, Ann Arbor, Mich.; Miss Ruth A. Walker, Boston University, graduate of the training school of Boston City Hospital; Miss Eula Whitehouse, University of Texas, graduate of the training school of City Hospital, New York City; Miss Laura R. Logan, R.N., superintendent of Nursing School, University of Cincinnati.

At eight o'clock an entertainment was held, with dancing and refreshments.

On November 28, in the morning, there was a memorial service in the Chapel, in memory of those members of the Training Camp for Nurses who died during the epidemic of influenza, while in service in the hospitals. The speaker was Miss Annie W. Goodrich, director of nurses, Henry Street Settlement, New York, assistant professor of nursing and health, Teachers' College, Columbia University, dean of the Army School of Nursing, 1918-1919.

Résumé of the Speeches

The points that were emphasized in the discussion, "The respective limits of student government and authoritative control in the training of pupil nurses," were whether it should remain in the home life only, or whether it should be carried over into the hospital. The consensus of opinion was that at the present stage of development in training schools, it was applicable only to the home and social life of the pupil nurse. This idea of student control has worked out very successfully in the training schools connected with the Toronto General Hospital, Rochester General Hospital, and University Hospital, Ann Arbor.

Of the after-dinner speeches, Miss Nutting's address was one of welcome and encouragement to the new recruits. Dr. Hume brought greetings from Miss Nina Gage, assistant dean of the Training Camp, at present engaged in introducing public health methods in the interior of China,

and he related various anecdotes of her work among the Chinese. For the 400,000,000 of the population there are but 200 trained nurses, or one for every 2,000,000. Miss Wilson of the Central Council for Nursing Education outlined the publicity campaign among the different hospitals in the Middle West, and was interested in discovering why the recent graduates from training schools were not influencing their friends to follow in their footsteps.

Friday evening the graduates were officially welcomed by President MacCracken with the message that, since Vassar College always stood for health, Vassar again pledged herself ready and willing to support and aid any further conferences looking toward that end. Mrs. Blodgett, sponsor for the Training Camp, gave a brief history of how it came into being. Professor Winslow reviewed fully the "Vassar Idea"; that of an intensive theoretical course in a college, followed by practical work in cooperation with a hospital. Professor Winslow believes that training schools for nurses must be independent educational institutions like the medical colleges. This is largely a matter of dollars and cents. Major Stimson spoke about the benefits to be derived from the Army training schools, particularly as to travel. Professor Mills gave a brief résumé of the numbers graduating from camps, those who continued in the hospital, and those who followed other pursuits.

On Saturday morning, in the discussion on how the correlation of the theoretical and practical work in training schools for nurses can be improved, the general opinion was that just at present the curriculum of training schools does not seem to have a definite place for correlation of theory and practice. A possible solution is the training school, independent of the hospital, with the nurses trained at public expense for public service. The duty of those connected with training schools is plain —to bring about public understanding of the situation so that there may be training schools that are endowed and self-supporting.

On Saturday afternoon suggestions for encouraging the right kind of women to enter nursing were fully discussed under the heads of educational, social, and spiritual advantages to be derived during training. At the close of this session a short business meeting was held, at which it was unanimously voted that Dean Mills remain permanent secretary-treasurer of the Camp, and Miss Frances Buffman was chosen to continue as president. An advisory board of three members, namely, Miss Priscilla Barrows, Miss Margaret Canington, and Miss Ruth Kittinger, was elected to act with the president and secretary.

The evening was spent in dancing and "stunts" furnished by the various groups.

On Sunday morning, in the college Chapel, a wonderful tribute was paid by Miss Goodrich to the seven young women who gave their lives during the early months of training.

Enough cannot be said to fully express the gratitude of the Camp for the kindness and hospitality that Vassar has always shown. The officials of Vassar College, through their untiring efforts, made possible the realization of the dream of reunion, and a special tribute of thanks is due to Dean Herbert Mills, who has proved himself so devoted a friend to the graduates of the Vassar Training Camp.

The test of civilization is the estimate of woman. Among savages she is a slave. In the dark ages of Christendom she is a toy and a sentimental goddess. With increasing moral light, and more universal justice, she begins to develop as an equal human being.—Curtis.

A YEAR OF RED CROSS WORK IN THIS COUNTRY AND ABROAD

More than fifteen thousand American communities were touched by the activities of the American Red Cross during the year ending June 30, 1920, according to the annual report of the organization covering that period.

During the year a Red Cross Department of Health Service has been organized. Through it have come into active operation, to June 30, 1920, 128 health centers, from which radiate innumerable activities designed to improve the health of the community, while 435 Red Cross chapters were actively engaged in disease-preventive work. The Bureau of First Aid to Injured was transferred from the Department of Military Relief to the Health Department January 1, 1920. In addition to the 6,000 certificates issued to those who had taken regular courses, 465 medals have been awarded, ten first aid contests have taken place in various states, 1,500 medallions have been distributed, and 775 junior members have been awarded emblems. The life-saving, or water first-aid service, has been extended the past year by the addition of twenty-nine Red Cross life-saving corps and the enrollment of 1,500 new members, of whom 503 are women. There is now a complete woman's corps in this branch of the service.

The Health Department also includes a Bureau of Medical Social Service, which had under its supervision June 30, 1920, 312 Red Cross employees, serving fifty-two public health hospitals. Of this number 125 are hospital social workers, and during the year, 30,422 patients have received from this bureau some form of Red Cross service.

In the Department of Nursing the fiscal year was one of transition from military to civil activities. As the Red Cross has assigned 20,000 graduate nurses to war service, the Department of Nursing felt responsible for their proper return to civilian life, and to this end has conducted a bureau of information which has aided in placing at least 2,500 of those who have sought its aid. In this connection, also, the Red Cross appropriated $16,000 for the establishment of a convalescent home for sick nurses. Of the 604 nurses attached to the various American Red Cross commissions in Europe when the armistice was signed, all but 116 had returned to the United States by June 30, 1920.

During the year, also, the Red Cross has cooperated closely with other national organizations to recruit student nurses for public health work.

One of the important results of the work done by the Red Cross Health and Nursing Departments has been that thirty-five states have practically adopted a uniform method of working in connection with the Red Cross, whereby a bureau of public health nursing has been instituted under the direction of the State public health officer.

The part which the American Red Cross took in the organization of the League of Red Cross Societies was purely educational; but in this way it blazed the trail for the League, which aims to extend the distress preventive and constructive brotherhood throughout the world. At the first conference, held at Geneva, at which representatives were present from twenty-eight countries, it was decided to adopt the methods which have been worked out by the American Red Cross as the plan to be followed by all.

Our national health is physically our greatest asset. To prevent any possible deterioration of the American stock should be a national ambition.—Roosevelt.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
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FOOD PROBLEMS IN RECONSTRUCTION

By DR. ALONZO E. TAYLOR, University of Pennsylvania, Philadelphia, Pa.

EVERYONE familiar with the efforts of the United States Food Administration realized that the work of the women, trained in home economics and scientific dietetics, was in each state the basis of the public success of our programs. The definition of a program was in itself often not difficult, but the daily extension, the daily support, the continuous reinforcing of the lesson, was something that naturally fell upon the trained women of each community. Without their assistance, the continued visualization by the American household of its duty in the war could not have been maintained.

Naturally it also falls within the function of the same groups of trained women to face now the problems of reconstruction. Those who imagined that, after the war was over, we should be permitted to resume the existence of five years ago precisely as we left it, to take up again our problems and pleasures as we left them, have certainly by this time come to realize that all such expectations are doomed to failure. The world will not again be what it was six years ago—at least not within our period of activity. There has been such an enormous destruction of materials and human energies throughout the world, that it is not possible to hope, except in the event of discovery of very unusual new resources, to have the world restored in an appreciable space of time to the position it occupied before the great war.

Deflation of Prices Inevitable

During the war it was the function of the trained women of our country to teach all women conservation, the elimination of waste, and substitution. Today the world faces a deflation in prices. Deflation of prices means, primarily, for the moment at least, a consumer's market. The degree to which this may extend, and the results that may be expected to follow from such a condition, depend largely upon the future attitude of the consuming classes themselves. It is clear, from the history of previous periods of price inflation, that the maintenance of reduced prices depends indirectly, to a large extent, upon the consuming public, since production must not be undermined.

A year ago in this country we were all living in a fool's paradise. Everyone seemed to have an unlimited bank account. Everyone wanted everything that could possibly contribute in any way to what we defined as the attributes of well-being. All classes wanted the broadest and the highest standard of living. It was clear at that time that we were consuming in excess of a safe estimate of our resources, and that eventually the price for extravagance would have to be paid. The question that concerned the men who were considering the problem theoretically was, upon whom the penalty would first fall, and how heavy the punishment would be. We have now come to the break. Prices are falling. They must fall. We have the psychology as well as the fact of falling prices. The consumer today refuses to buy, not for the opposite reason of his willingness to buy a year ago,—that he had money then and has no money now,—that is not the primary motivation at all. The consumer found to his bitterness a year ago that by his buying he accelerated the trend of prices upward, and he reasons contrarywise that by refusing to buy he can now accelerate the trend of prices downward. This is correct.

The only question is, to what extent is it wise to accelerate the curve of prices downward? Now a panic is little more than an accelerated run of price deflation. If prices are to fall, and they must fall, and then, on the basis of reduced prices, if consumption is to be maintained, it is apparent that the refusal of the consumer to buy cannot go to the point of lowering production so profoundly as to make it unequal to the future demand. In other words, the ideal method of price deflation is to taper off gradually. If deflation occurs precipitously, it leads to such profound disorganization of the processes of production that later, when the demand increases, supply cannot be maintained and prices again rise, or in any event, exhibit startling instabilities.

Unstable Prices Worse than High Prices

We are gradually coming to learn that unstable prices are worse than high prices. If you were to ask a German what the trouble with the mark is, he would say that it was fluctuating. If you could fix the mark at two cents, every manufacturer in Germany, and everybody else, would be glad. When the mark was a cent and a quarter, there were large importations of cotton. The mark rose to two and three-quarters cents, nearly three cents. This looked fine to the theorist, who says that we measure the recovery of Germany by the recovery of her currency. But when the mark rose from one and a quarter to two and a half cents, it cut the price of the sale of that cotton to the Germans, and to the outside world, in two, and every importer and manufacturer lost money. They therefore stopped importing. When the mark reached three cents, the imports and exports of Germany stopped. In these fluctuations, up and down, first the manufacturer, importer, and exporter lose, and then the banking

world loses. The result is a complete disorganization of the forces of production. What is needed in prices is a stabilizing tendency, which shall enable everyone connected with production to forecast in advance the probable costs.

No man today can expect basal production to recover within a year, with price deflation carried to the point where some of our raw materials are already, within six months, fallen to a plane of lower than pre-war values. I have just come from Kansas, where I had the privilege of speaking before the Wheat Exposition. There are men in the Middle West who farm land that is now worth from fifty to one hundred dollars an acre more than it was before the war, and are selling oats for the same price they received seven years ago. There are men in the West who are paying fifteen dollars an acre rental, and selling forty bushels of oats to the acre for forty cents a bushel—in other words, the crop is no more than paying the rental. Cotton, wool, and hides are selling below cost of production; wheat also, in some sections. Now these precipitous descents in prices, that are apparently to the interest of the consumer, are eventually, if they are carried to excess, to his detriment, for the man who wants grains next year may find that the farmer cannot plant them at that figure. No price depreciation must be so sudden and depressing that in the year to come it destroys the labor of the present year.

Efficiency of the Diet the Problem Today

A true deflation is one that is continuous, equitable, and sequential, and not sudden, with wide fluctuations. Nevertheless, the consumer of foods feels the psychology of the falling prices. He already has the fact of the falling income. The relation between falling prices and falling income constitutes for the women in the household the problem of the next twelve months. Is the price curve to fall more rapidly than the curve of income; or is the curve of price to be a widely fluctuating one, and eventually the curve of income to fall disproportionately to the curve of price? The housewife is thus compelled to regard the diet from the point of view of the efficiency of the diet. The point of view of wanting the best at any price can no longer be followed in any class. The lesson of the efficiency of the diet, the control of the purchases of the American housewife, and her instruction in the formulation of the family diet from the standpoint of correct physiology, and also from the standpoint of her economic situation, constitute the problems that trained women during the next year will be compelled to face in their everyday work.

The standard of diet in Europe as a continent is very low. It is higher in England than it was before the war, for the poorer class, but that is largely a question of governmental subsidy. Everywhere in Europe where the government is not paying for the food and giving it away, the standard of living is very much reduced; and in most countries even where the government is paying for the food and giving it away, the same condition exists. Europe, outside of Russia, is consuming about 80 per cent of the bread grain she consumed before the war. She makes up for the reduction in the amount of wheat and rye consumed by milling it higher. They don't mill grain to 70 per cent in Europe. They extract it to 80 or 90 per cent, and thus the volume of flour is little lower than it was before the war. The reduction in consumption of animal products of all sorts cannot be made up. There is an increase in vegetable food, but this is poor in calories. Therefore, Europe is on a poorer diet. She is doing less physical work than before the war, her inhabitants have suffered reduction in body weight. In addition to scarcity of food supply, there is scarcity of clothing and coal. The clothing they use is thinner, and the houses are not heated in Europe to anything like the pre-war temperature. This exaggerates, of course, the effect of the low caloric intake. Fortunately, they have had two mild winters in Europe. If this winter should be the usual cold one, the present coal supply, the present clothing, and the present diet of Europe will make such a winter almost intolerable for millions of people.

Diet Must Be Normal

Now the Europeans, when they had to cheapen their diet, did so by making the diet more vegetarian, especially was this done in Central Europe. The Germans were not especially heavy consumers of meats; contrary to popular belief, they did not consume as much meat as the British and Americans did. But they were heavy consumers of fats. The Germans used to believe that sauerkraut was a cabbage dish. They have learned that sauerkraut was a fat carrier, and without fat the national dish of the diet fails. The German diet is today very low in fat. If the total calories are reduced 15 or 20 per cent, the proportion of the calories in the form of flour must be very much increased. This is true of all countries. In Great Britain before the war bread was about 37 per cent of the total calories; for the last three years it has been 50 per cent. In France it was over 50; it has risen to 60 per cent. In Italy it was 60; it has risen to 70 per cent. Today Poland and Austria have as cereal a diet as Japan had before the war. The tendency of the diet in Europe has been to be orientalized in the direction of a large cereal intake.

Now an abnormal and restricted diet of course serves when it has to serve. As a diet of compulsion it is acceptable, as a diet of choice it is impossible. The problem in this country is to guide Americans in a rational restriction of the diet, with the preservation of its attractiveness, and without producing an abnormal psychology. We don't want the practice of food substitutes revived in this country in any attempt to influence the diet of the American people, because it will not work in peace times. The war diet floated upon the exalted atmosphere of patriotism. In the guidance of the American kitchen toward the development of a future diet that shall be saving, we must bear in mind that it must appeal to the normal psychology; it must be regarded as a normal and correct diet. The future diet must at least be what the diet was, let us say fifteen or twenty years ago, when it was much more simple than it has been during the last year.

Agricultural Conditions an Aid

A great deal of the possibilities in diet reform depend upon our agricultural conditions. Fortunately, in this direction we are aided and not opposed. We have enough wheat in this country to sustain an over-normal wheat consumption without restrictions, and still sell two hundred and forty million bushels of wheat to Europe. She will hardly be able to pay for it by any known method of finance, outside of international credits. There is no purpose in saving wheat in this country, no matter how badly Europe needs food, in order to send that wheat to her, because it is not a question of indispensability, as it was during the war. Europe will be able to find in the world any amount of wheat she is able to pay for, without any restriction of wheat consumption in North America, Australia, or the Argentine. It is not a question of substitutes. On the contrary, it is possible that

the European will be doing the substituting, for price reasons.

The Central Europeans prefer rye if they can secure it. Rye is 20 per cent cheaper than wheat, and they will import all the rye from this country that they can secure, to meet requirements. Of course, a good deal of our rye does not meet milling requirements, because, whereas only a small proportion of wheat is not constituted to make good flour, a large proportion of the rye is only adapted for animal feed or for distillation. Nevertheless, Europe will first take rye. She will then purchase wheat. Europeans already have all the barley they can possibly use as human food, they take it from their animals. If they import barley from the outside world, they would not import it for the purpose of making flour, but for feed, and then from their own barley select that suitable for milling and make that flour, because it is cheaper. Europe will not import maize from the United States, for the crop in Italy and the Balkans is good. Southern Europeans will of their own accord employ maize in their diet more largely than in the past. Northern Europeans could use a 55 per cent extracted, degerminated corn flour, but they don't call for it; they would have the same problem of importing, and the mere fact that corn flour is somewhat cheaper does not modify the financial difficulty to a great extent. In any event, if they import maize they will not import it from here, but from the Argentine, where it is cheaper.

Exports to Europe

We must therefore look forward to the situation that, out of the record crop of grains in this country, we will export only wheat and rye to Europe. This makes the other grains and all the other feeds available for an extended output of animal products of all sorts. We will mill perhaps 30,000,000 bushels of wheat less this year than we did last year. On the other hand, our extraction of flour is lower this year, so that there is in each ton of grain more mill feed. This is of very great importance, because the chief dairy sections of our country are located in close proximity to the large milling centers.

We will have a somewhat larger crop of cotton, which means a somewhat larger crop of cotton seed. If the cotton seed is higher than nitrate from Chile and tankage from Chicago, the grower will sell it, and it will come north in the form of dairy feed; if it is cheaper, he will put it back in the soil as fertilizer. The fall in the price of cotton fiber tempts the grower to hold up the price of seed. In other words, if we have a 10 or 12 per cent increase in the cotton crop, this does not mean that we shall have 10 or 12 per cent more cotton seed available as feed. On the other hand, we have a larger amount of barley and rye available, because we have no production of malted and distilled liquors, and this means that these grains will be more available for feed than before. We have in the West a large crop of all forms of coarse grains. We have a bumper crop of corn, with the carry-over about 3,400,000,000 bushels. The country was never so long on feed as at present. This would naturally mean, other things being equal, with a stable price in view, a large production of animal products at a low price. If this could occur, it would provide one basis for reduction in the cost of the diet in the American home, without material change in the direction of outlay. Unfortunately, however, this calculation runs counter to the fact that we have not the animals. We have lost about 10 per cent of cattle and 6 per cent of swine in the last two years, by special counts made on the first of August of this year and last. So we have the anomalous situation of 18 per cent above normal in feeds, 10 per cent below normal in cattle, 6 per cent below normal in swine, and no possibility of making it up this year. Therefore, no matter to what extent the price of oats or corn may fall, even if to the pre-war level, it cannot be expected that a large volume of animal products above that of last year can be secured, on account of the scarcity of animals.

Market Demands Dropping

To what is the scarcity of animals due? It is due to the inability of the farmer to see a continuation of the market demands of the past two years. Three years ago we exported a very large amount of animal products; two years ago it was still large; last year it dropped heavily; next year it will probably drop back to the pre-war level. This has been due to the fact that three and two years ago we were selling animal products to Europe on governmental credit. Now Europe does not import cash lard or beef as against cash wheat. Europe imports wheat because it gives the most calories per dollar. The result we may expect is that the exportation of animal products will descend heavily.

What will the farmer do with the limited amount of cattle and swine, and the unlimited amount of feed, which he cannot sell? All the grains are sound and dry and will not decompose, so he could keep them over for one or two years. But the holding of crops means credit facilities which he does not possess, unless he can secure an extension of credit, which at present does not seem possible. The farmer must attempt to market as much as possible this year. He may finish for market a larger percentage of the animals than ordinarily, which means that the count of animals would be still further reduced in another year; in other words, kill off more cattle and swine in order to get rid of the feed. Or he will feed the animals to heavier weights. When the farmer does this, he disturbs certain price relations which are based upon taste. In one case he will feed in the direction of public taste; in the other, he will feed in opposition to public taste. The farmer who is feeding beeves to heavier weights will be feeding in opposition to scientific authority; the older and larger the animals, the lower the return in meat to the unit of grain employed. The efficient method is to produce baby beef, not three and four year old steers. But in order to get as much grain as possible into the final product, since he can count his corn of little value unless he can get it into the form of meat, the farmer will be tempted to feed his cattle much longer, and to heavier weights. The public likes beef from heavy-weight cattle. These furnish the big cuts that the hotels and restaurants want, just as our own army and navy, during the war, made absurd demands upon the Food Administration for the largest carcasses. The taste of the American public is toward cuts from heavier beef. Therefore, if during the course of this year the farmer does what we think he will do to get rid of his corn and feeds, you may find that the discrepancy that exists now in the price of choice cuts and secondary cuts in the meat shops will become less marked, or possibly disappear. The characteristic thing today in the meat markets is the high price for choice cuts, with moderate prices for the so-called secondary cuts, and losing-money prices on poor cuts and on the by-products. The public's predilections for certain cuts is evidenced in the buying price. Before long you may find the price of the choice cuts reduced largely, and prices equalized. The other day, when corn sold at ninety

cents in Chicago and seventy cents in the western plains, prime steaks registered a very high retail price. Now this discrepancy should disappear. Certainly the feeding for larger beeves will please the American customer.

Farmers Will Feed Animals More

It will be just the reverse, however, when it comes to hogs. Public predilection is for lean bacon and small hams. The public likes the products of a pig weighing not more than one hundred and fifty pounds. If the farmer, in order to get rid of his feed, feeds the animals to a much heavier weight, this will mean that ham and bacon of the kind that Americans like will become scarce, that mess pork, large hams and lard will become more plentiful. The price of these three may be counted upon to fall, whereas the price of the others may be maintained or rise. We will be offered the kind of products that we care less for, except in so far as the use of lard in the kitchen is concerned. The final result of the operation will be to reduce the price of heavy hogs, which will still further increase the difficulty of the farmer. It may make the cost of the choice hams and bacon higher than they are now, unless the public declines to buy at those prices, and even with the small stock, producers are compelled to reduce the prices. The tendency, therefore, will be to increase the consumption of beef, and decrease the consumption of pork, partly as an expression of price, and partly as an expression of taste relations. This is not what we desire. What we need is an increase in the production of milk. It ought to be possible to accomplish this under the present circumstances, where the drift of labor back to the farm has clearly set in. We may be assured that the price of feed will fall. Certainly feeds—gluten, for example—are today almost a drug on the market. We anticipate a progressive and continuous fall in the price of the protein concentrated feeds. This, together with the return of labor to the farm, will enable the American dairy to increase the production of milk. Vegetable oils are cheap now, this means cheap margarine to compete with butter, and cheap lard compound to compete with lard.

One of the things that enables a stable price to be maintained is variety of uses and diversity of buyers. During the recent years we have had a moderate export of cheese, a good export of butter, and a large export of condensed milk. These exports are certain to decline. When Danish butter comes to New York and undersells ours, it is impossible to believe that we can continue exportation of dairy products. We are now sending condensed milk to Europe only as a part of relief programs. The volume of milk which Asia, the West and East Indies, etc., took from us before the war is not enough to support the present condensaries throughout the country with more than a normal activity. Some of them are compelled to close down. As these condensaries close down, they will throw the milk back upon the dairy. In the reduction of cattle that has occurred during the last year, fortunately only a slight reduction in milch cows is included. The cities must consume more whole milk.

Bread and Milk Most Important

We must centralize the American diet, for the period of reconstruction of prices, around bread and milk, where it belongs, not around bread and meat. Fifty per cent of the calories in cereals, (bread), and 20 per cent in dairy products would be the foundation of an ideal national diet. You must preach this at all times, that valuable as meat is in many ways, it is not to be regarded as comparable with milk in the diet, but only as an imperfect substitute for milk. During the war Graham Lusk taught correctly and effectively the priority of milk over meat. The American diet, if it is to be maintained in efficiency for all classes, must be within the buying power of the classes of lesser means. Otherwise, in the reconstruction of the family budgets, the most essential article may go out, and less essential articles will to some extent be maintained. If the farmer uses his corn to produce heavyweight hogs, and throws upon the market lard at a low price, the tendency will be to replace milk in the home with lard, both for cooking and direct consumption. This would put the people of our cities in the position which the mill operators of the South have occupied for many years, and certainly with deplorable results. If choice is to be determined solely by price, then there is a likelihood of the public consuming lard or lard compound rather than dairy products. It is therefore imperative that dietitians should teach their communities that under no circumstances should the milk of the diet be reduced. Reductions in price may be attained in many directions, lowering of milk consumption is not to be included, nor that of bread.

There are several directions in which economy can be attained without any loss of efficiency whatsoever. We have developed during recent years an enormous consumption of fruits and vegetables, at all seasons of the year and from all quarters of the globe. When we were considering the war-time restriction of imports, of so-called less essential foods, we studied the distribution of the tropical and other forms of fruit. Nowhere in the world is there such a consumption of fresh fruits and vegetables during the twelve months as occurs in this country. Now it is very good and admirable, ideally considered, to have them all. It is certainly healthful. But in the volume that we employ them, when contrasted with milk, they cannot be defended. If our people have to choose between less milk and less fruits and vegetables, including hot-house, tropical, and imported fruits and vegetables of all kinds, there can be no argument. In the first place, milk furnishes far more calories per unit. There are fat-soluble vitamines in certain vegetables, it is true, but the milk has also balanced protein. The whole diet rotates about milk in the preparation of food, and it cannot be replaced. I have seen people trying to live on leaf vegetables, which contain the vitamines found in milk. They get their vitamines, but they don't get much else. Of plant products the seeds contain the least fat-soluble vitamine, and the most calories. Roots and tubers contain less calories and more vitamines. The leaf vegetables contain the least calories and the most fat-soluble vitamine. Milk contains everything but roughage. The leaf vegetables are to be highly prized, but vegetables as a class cannot be compared with milk. The reduction must come chiefly in hot-house and tropical fruits and vegetables, and in domestic products that are transported long distances. This does not mean a lowering of the standard of living, but a return to the simplicity of use that even the wealthy classes had only twenty years ago.

Secondly, the question of sugar. Pre-war sugar was a very cheap food. Sugar at twelve cents a pound retail is still cheap food, much cheaper than the meats. Even sugar at twenty cents a pound is cheaper than many meat products. But it is not the price of sugar with which we are concerned, it is the form in which it is consumed. It is not consumed as sugar, it is consumed largely as confections. We do not want less sugar consumed, we want it at a cheaper price. The sugar cost of a pound of candy is not over six to eight cents. The

price of a pound of candy varies from thirty cents to two dollars. We must not confuse sugar consumption with confection consumption. The difficulty with American consumption of sugar is not that it is too high, but that it is consumed in a mass of other materials, and we pay so much for labor, rent, overhead, wrappings, and profit, that the retail price paid by the individual is entirely out of proportion to the sugar value or food value of the commodity. What we suggest for the American home is not reduction of sugar at the table or in the kitchen. We need a reduction of sugar in more expensive manufactured states—confections and beverages. It is hygienic to consume sugar in the form of candy with the meals. It is just as good as consuming straight sugar. But while one costs now twelve cents a pound, the other costs many times that. If we could reduce the cost of the sugar that we consume, by changing the form so that we consume it as we buy it, or do our own fabricating, if you please, rather than buy so much in a highly fabricated form, it will result in a very large saving. If we are going to cheapen the American diet without reducing its quality, we must do so by increasing the consumption of bread and milk, and by decreasing the consumption of certain fruits and vegetables, meats, and meat products, and by holding the consumption of sugar, because it is a cheap food, to the amount we are accustomed to, but in the form of sugar rather than confections. Is it not possible to go back to the sugar consumption of twenty years ago, when we consumed more in the dining room, and less in the parlors, and on the street?

Diet Must Not Be Injured

These are the only ways in which the American diet can be cheapened and not be injured. We must not permit it to be injured. We are the best nourished people in the world, and we have acquired, as a whole, rather elevated ideas as to what constitutes a proper and normal diet. It is our duty to teach the American public how to spend materially less money, since we are going to have lower incomes. We must consume less and save more if we are to pay our debts. If we do not do this, we will at once provoke class contrasts; and class contrasts today are not only unfortunate and unjust, they are very dangerous. The chief basis for social unrest abroad is inadequate food and poor housing. Now the term "poor food" is partly relative, in some countries it means actually poor food, in other countries it means merely a reduction from the accustomed standards. This leads to discontent, as the people think lower standards of living are due to the government in power; that if they could change the government it would mean a lowering in the price of commodities and increase in diet. This is untrue, of course, but it constitutes the basis for social unrest. A reduction in the standard of living is inevitable; it must occur to some extent here and also in South America. It has come in Japan, as in England. It must come everywhere, for the simple reason that if the fiscal affairs of the world are properly run, the resources are not sufficient to maintain our inflated standard of living. If we are going to pay our debts, we cannot eat and drink and play as we are doing; if we are going to repair the ravages of war, we have to save, which means a reduction in the total plane of living so that the national net income may be augmented. We must produce more and consume less.

This becomes a practical problem for all Americans. The American people must be led scientifically and agreeably back to where they were, and the consciousness must be preserved that this is a normal operation carried on for the public good. It must be visualized that we cannot maintain our present high plane of living while the other nations live on a much lower plane. That would mean isolation here, and bitterness everywhere else. It is fortunate for the American people that deflation has come before the contrast between us and the other nations had become more pronounced. We must use every effort to influence the trend of price deflation in the direction of normality of consumption. The readjustment that is inevitable should be done equitably, fairly, efficiently, from the standpoint of the purchasing power, justly from the standpoint of the social consciousness, in a manner to give satisfaction to all classes of our population.

AMERICAN DIETETIC ASSOCIATION TRANSACTS IMPORTANT BUSINESS

At the opening of the business meeting of the American Dietetic Association a letter from Dr. Frank Billings was read, which referred to the Association's becoming a member of the American Conference on Hospital Service. A motion was made and carried that the president make formal application for membership in this Conference. A report from the committee, appointed to consider the relation of the American Dietetic Association to the Hospital Library and Service Bureau, was read by Lucy Gillett. The committee recommended that, because there had been little time to investigate the matter, they would like to have an open discussion of the proposition, that all were agreed as to the need of a bureau for information and that this seemed to be a step in the right direction. The brief discussion which followed brought out the question of just how many members this bureau would serve, and whether or not it would help any except hospital workers. A motion was made and carried that the secretary make a thorough investigation of the proposition, and determine the wishes of all members before any definite action is taken. Katherine Fisher, chairman of the committee on nomenclature and function of sections, read the report of her committee. The most important recommendations were:

1. That the four sections now in existence remain as already organized, and that their function consist in developing the special interests of Association work.

2. That each section be responsible for: keeping in touch with newer developments in that field and for bringing these to the attention of the members of the Association; reviewing new literature; and appointing any sub-committees necessary for carrying on the work of the section.

3. That there be very close cooperation among the section chairmen so that each may be kept informed as to what work is being planned for the year, and so that unnecessary duplication of work may be avoided.

4. That each section chairman clearly understand her responsibility concerning the program at the annual meeting, and the time allotted to her section at that meeting.

The motion was made and carried that the report be accepted. E. M. Geraghty, chairman of the committee on standardization of training of dietitians, reported that because of illness on the part of a member of the committee from the American Home Economics Association, the report of this committee was not ready. The motion was made and carried to have this committee continued another year. A motion was made and carried to have secret ballot voting. Ruth Wheeler, chairman of the committee on revision of constitution and by-laws, asked that the points in question be discussed by correspondence and

no action be taken until next meeting. A motion was made and carried that this suggestion be adopted. Another motion was made and carried, that a committee be appointed to draft resolutions of thanks to all who have helped to make this meeting a success. Miss Rena Eckman was made chairman of this committee. Among others mentioned to receive copies of these resolutions were the following: New York Association of Dietitians; Department of Household and Institutional Administration; Teachers' College; Louis J. Frank, superintendent, Beth Israel Hospital; Mr. Vonderlon, Hotel McAlpin; Mr. Downing, Hotel McAlpin; Mr. Lifsey, Waldorf-Astoria; E. M. Statler, Hotel Pennsylvania; George Sweeney, Hotel Commodore; Miss M. Goldstein; Harold Martin, Associated Press; Underwood and Underwood; THE MODERN HOSPITAL; *Hospital Management;* Mr. Stanton, New York Central Lines; J. A. McNamara, Remington Typewriter Company; and Convention Reporting Company. E. M. Geraghty then presented a brief sketch of some of the things done by the secretary during the past year. Katherine Fisher moved that the Association express its appreciation of this work and suggested that the secretary should be paid a salary. Abby Marlatt seconded the motion. The amount of remuneration is to be determined by the wishes of all members, and this matter will be handled by correspondence. The motion was carried. Margaret Sawyer read the report of the treasurer, of which there was no discussion. Invitations were received from Chicago and Minneapolis for the next meeting. The time and place of meeting will be decided by the executive committee. The motion was made and carried that Miss Lulu Graves be made honorary president. This was greeted by hearty applause from the entire assembly. The Association presents the following resolutions:

The American Dietetic Association wishes to express to Miss Lulu Graves its appreciation of all that she has done for the Association during the three years that she has been president. She has been a strong executive, and during her leadership the membership of the Association has been extended to include men and women from scientific, administrative, and executive fields. She has been untiring in her efforts to strengthen the organization, and bring it to a feeling of permanency and solidarity. She has demanded high scholastic requirements of its members, but has also recognized practical experience as an educational factor.

The officers elected by secret ballot for the following year were: President, Mrs. Mary deGarmo Bryan, 626 Bergan Avenue, Jersey City, N. J.; first vice-president, Ruth Wheeler, Goucher College, Baltimore, Md.; second vice-president, Rena Eckman, University of Michigan, Ann Arbor; secretary, E. M. Geraghty, 801 South Wright Street, Champaign, Ill.; treasurer, Ellen Gladwin, Jefferson Hospital, Philadelphia, Pa.

TRAINING BEGINS IN HOSPITALS

The rapid advance in treatment of men affected with psychoses is evinced by new methods adopted by the Federal Board in caring for ex-service men. In a vocational unit established by the Board at the Government Hospital for the Insane, St. Elizabeths, Washington, D. C., and at Manhattan State Hospital, New York City, vocational training is to be started while the patient is still in the hospital, will continue in a training center under expert supervision, and will prepare the man to return to his home not only with a trade but with a job.

The economic independence and consequent stimulation which hope of becoming once more a recognized and able member of society, will insure, and will in the judgment of the Board render certain his permanent adjustment to the social conditions of his environment. Such a scheme, if successful, will make possible the establishment of similar units in all hospitals caring for a number of ex-service men suffering from nervous and mental disorders.

Nothing could be more in harmony with the general tendency of social adjustment along the line of psychological facts.

The former inept method of discharging a psychotic patient as cured when he no longer presented asocial or anti-social symptoms in hospital environment and of returning him to the very surroundings in which his psychosis had developed neglected the determining factors in his case. The relapse which frequently followed was to be expected. Economic dependence and no definite aim in life are enough to tear down normal mental resistance.

FALSE STATEMENT CORRECTED

In the report of the third annual meeting of the American Dietetic Association, recently held in New York, an erroneous statement was made. The report stated that Dr. Alonzo Taylor advised that bread and milk in the dietary be reduced. This is incorrect. Dr. Taylor especially emphasized the importance of increasing the consumption of bread, and the use of sufficient quantities of milk in the diet.

HYGIENIC SINNERS

The waitress who carries a napkin under her arm and wipes off your plate with it.

The fruit-stand owner who exhales on your apple and polishes it on his sleeve.

The cook who tastes from the pot and stirs with the tasting spoon.

The employer who does not supply adequate sanitary facilities for his help.

The street car conductor who holds the transfer slips in his mouth.

The restaurant toothpick and the cigar cutter.

The roller towel.

The milkman who takes the temperature of the milk with his finger.

The janitor or porter who dry-sweeps the floor.—*Medical Insurance and Health Conservation.*

SOCIAL WORK A FINANCIAL SAVING

Mr. E. S. Elwood, secretary of the New York State Hospital Commission, recently said in a report of the results of social service work in New York state hospitals since the establishment of social service follow-up work, that the number of patients on parole from these hospitals has increased from less than 1,000 to about 2,300 last March. He says: "The coming of the hospital social worker and the establishment of mental clinics out in the communities have increased both the scope and efficiency of the parole system. . . . It is safe to say that at least a thousand patients in New York are enjoying a parole in their homes who would still be in the state hospitals were it not for the social service supervision given them. This means a financial saving to the state in maintenance alone of approximately $1,000 a day. . . . The New York Legislature has just made provision for additional social workers, to the extent that each state hospital will have at least one worker for each hundred patients on parole. Massachusetts has a state director of social service, and a corps of nineteen social workers, which is the largest number employed in any state today."

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE EFFICIENT LIGHTING OF THE HOSPITAL*

BY A. L. POWELL AND H. H. ALLISON, HARRISON, N. J.

PERHAPS in no other class of buildings are the lighting requirements so varied, and yet so exacting, as in the hospital. Not only must we take into consideration the question of providing adequate illumination in a given room, but we must remember that we are dealing with the human element in a most trying condition. In collecting the information on which this article is based, the lighting equipment of one hundred of the leading hospitals in the vicinity of New York was studied critically.

The main entrance of the hospital, a lobby, or reception room, gives the patients and visitors their first impression of the institution. These are always important. If the lighting is soft and pleasing, those entering will be made to feel restful and at ease.

The lobby of the more pretentious building usually receives special decorative treatment at the hand of the architect, being finished in marble with suitably decorated walls and ceilings. The columns, stairways, and elevator entrances are in artistic harmony. An ornamental type of lighting fixture, in keeping with the decorative scheme is, therefore, essential to this part of the building. Here, if anywhere, money can be expended on massive fixtures to carry out the picture. At the same time, special precautions must be taken that the light sources are not glaring. This would preclude the restful atmosphere desired.

Securing Even Distribution of Light

If direct lighting is used, suitable means must be taken to screen the lamp filament from view by the use of diffusing media in the form of shades or globes. The indirect system, as pictured in Fig. 1, inherently takes care of this factor. A combination of one or more pendant ceiling fixtures with harmonious wall brackets will provide as even a distribution of illumination as is desirable. To facilitate entrance and egress an intensity of about two foot-candles is desirable. With well diffused direct lighting or indirect systems, this value can be obtained by providing approximately one-half watt per square foot of floor area. If surroundings are particularly dark, this value should be increased somewhat.

In the larger buildings the reception rooms adjoin the lobby and are fitted up more or less as residential living rooms, being provided with easy chairs and tables for the comfort of those waiting who wish to read and write. Two practices in lighting apply to such rooms. The first provides a sufficient intensity, three or four foot-candles, through the entire room from suitably placed overhead units; the other, which is more comfortable and quieting, provides merely a low intensity of general illumination, and supplements this with a number of suitably placed and properly shielded local table or floor lamps. This arrangement gives a touch of light here and there which is artistic and restful, such an installation can be seen in Fig. 2.

Needs of Small Hospital

Small hospitals and dispensaries, of course, do not have an elaborate lobby or reception room, and often utilize part of a corridor for this purpose, having chairs, for the reception of visitors, along the walls. A moderate intensity of three to four foot-candles of well diffused light should be provided in this part of the building, with the standard type of equipment used for corridor lighting.

The present lighting, as pointed out below, of a high percentage of the institutions, leaves much to be desired. Of the one hundred hospitals inspected, only five have their lobbies and reception rooms lighted in a manner which would be deemed satisfactory to the experienced lighting engineer. Fourteen per cent were illuminated by glaring incandescent lamps without any means of shielding the light. Fifteen per cent had, as their only lighting, a single gas jet.

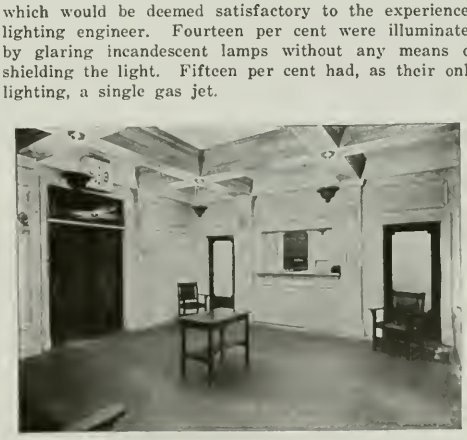


Fig. 1. Night view of a typical well designed hospital lobby illuminated by the indirect method supplemented by wall brackets and local lighting near the elevator. A harmonious and pleasing room is thus provided.

*Published by courtesy of the Edison Lamp Works of the General Electric Co., Harrison, N. J.

The hospital corridors or passage ways are usually provided with hard surfaced walls, ceilings of light color, and white tile floors which can be readily cleaned, and to be in keeping with the modern sanitary conditions, the lighting fixtures should be of a simple construction, easily cleaned, and non-dust collecting. They should be so arranged that direct rays will not strike the eyes of the patients and cause annoyance.

Fig. 2. The reception room in a large hospital as it appears by night with totally indirect units for general illumination, supplemented by decorative wall brackets, table and floor lamps. The comfortable, home-like appearance to be desired is thus obtained.

The totally indirect method is very desirable for lighting corridors of buildings where the highest standards prevail, the lighting is comfortable and artistic, as indicated in Fig. 3.

The system of direct lighting, employing a compact ceiling fixture with a suitable diffusing reflector also furnishes good illumination and is widely used for corridor lighting. There are many types of sanitary fixtures designed exclusively for hospital use, being dust-proof, with enamel finish.

As only sufficient light need be furnished to permit easy passage, an intensity of one foot-candle is adequate. For direct lighting an allowance of one-quarter watt per square foot floor area will give the required illumination, providing surroundings are light in color. This value should be increased slightly if surroundings are dark. As an example: A corridor eight feet wide might well be furnished with twenty-five-watt lamps in direct lighting reflectors, or globes on twelve-foot centers.

The investigation of hospital buildings above referred to, indicated that the same condition of inadequate illumination exists in the corridors as in the lobbies. Only 20 per cent are lighted to the desired intensity. Half of those which were inadequately lighted had sufficient wattage, but poor application resulted from use of inappropriate fixtures. The remainder were not provided with sufficient outlets, and used glaring light sources.

Wards

The ward is essentially a sick room for accommodating a number of patients at the same time. The size is determined largely by the purpose for which the hospital is used. In private hospitals, most of the patients occupy private or semi-private rooms, and the wards are designed to accommodate only a few patients. Public institutions, however, as a rule, are composed entirely of large wards accommodating upward of forty patients.

Wards, therefore, vary in size and shape, but generally are provided with hard surfaced walls and ceiling of light color and floors of glazed surface which may be readily cleaned. Typical wards of square and rectangular shapes with the usual arrangements of beds are shown in Fig. 4. Owing to the fact that patients' eyes are directed toward the ceiling for hours at a time, the lighting must be of a nature that will not strain or tire the eye.

In the ward there are three distinct requirements for lighting: first, in the evening hours, visitors are received who desire to move about or sit and talk with the patients; at this time, also, nurses and doctors perform their routine duties in preparation for the night. A well diffused system of general illumination is necessary to provide lighting that will be sufficient for the ordinary purposes as described above.

Second, local lights over the beds, in addition to the general system, are necessary. These should be of a character which will permit the patients to read or pass the time at other occupations requiring close vision, without eye strain. It also is frequently necessary for the doctors or nurses to attend a patient at night, and they need a high intensity of illumination for the use of instruments, etc.

Third, all hospitals require the lights in wards to be extinguished after a certain hour, but a night light is necessary to enable the nurse or other to move about with ease, and exercise the necessary supervision.

Analyzing these requirements we find that the totally indirect system (see Fig. 5) is probably most suitable for the general illumination, although semi-indirect units

Fig. 3. A corridor illuminated by the totally indirect system. Fixtures are placed approximately twenty-one feet apart and one-half watt per square foot of floor area is provided. The glass cover above the reflector should be noted, making it a very simple matter to clean and maintain fixtures in a sanitary condition.

may be used if equipped with heavy density bowls. The direct method using totally opalescent globes (Fig. 6) may be utilized in small wards or in remodeled buildings where conditions are not favorable for indirect lighting.

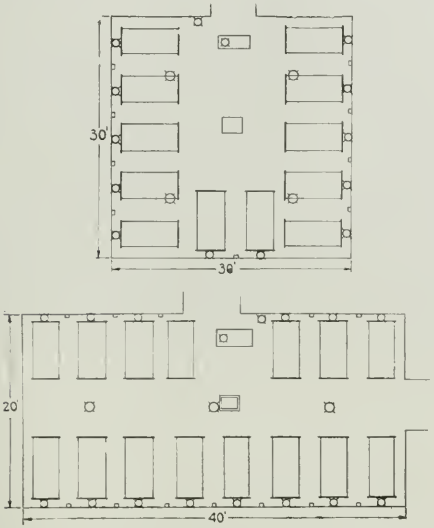


Fig. 4. Sketch showing typical arrangement of outlets in wards of the square and rectangular type. Ceiling outlets for general illumination and baseboard receptacles for local lighting, together with a drop lamp over the nurse's or attendant's desk will be noted.

Two or more rows of ceiling outlets are necessary to provide even distribution of general illumination in wards which are square in shape, but the long, narrow type require only a single row of fixtures as shown in the diagram, Fig. 4.

The proper intensity of general illumination for wards has been the subject of considerable discussion. The consensus of opinion, however, is that an intensity of two foot-candles on the bed level is altogether desirable.

If the indirect system is used with light surroundings, the above intensity will be obtained by an allowance of one-half watt per square foot of floor area. If surroundings are dark this should be increased slightly.

Outlets with a bracket type fixture for local lighting should be provided over or between the beds to furnish sufficient illumination for special purposes, as explained above.

There are several types of wall bracket fixtures available for this purpose. One fixture which reduces wiring costs and is very desirable combines the light and an extra receptacle in the same base. This base of flat white glass is attached to the wall; an opalescent reflector conceals the source and directs the light on the bed. Below the lamp is located a flush receptacle to which portable lamps, heating appliances, or instruments may be attached.

The importance of providing an extra receptacle cannot be over-emphasized. It is obviously undesirable to remove the lamp from the lighting fixture every time current is desired for these purposes, and unless equipment such as that just described is provided, baseboard outlets at frequent intervals are also very essential.

A common method of providing the night lighting is by use of low wattage lamps, wired on a separate circuit in the fixtures for general illumination, which are kept burning when all other lights are out. A very modern method for night lighting of wards is the placing of lights in the floor within trough reflectors, covered by clear plate glass. Their light is, of course, sent to the ceiling and diffused downward. This arrangement gives a light of low intensity and precludes all possibility of annoyingly bright fixtures.

A somewhat more elaborate night lighting system uses individual floor lights such as found in modern Pullman sleeping cars. Small pockets lined with reflecting material are recessed in the baseboard. The light from low wattage lamps shining through a set of baffles or louveres is cast in a narrow streak onto the floor between the beds, not visible to the patient, yet making all objects readily discernible.

As a night light is intended to furnish just enough light to discern the large objects, such as beds and doors, an intensity of one-quarter foot-candle is sufficient. An allowance of one-tenth watt per square foot floor area will give this. Thus in the sketch, Fig. 4, of the square ward, the dimensions thirty by thirty give a total area of nine hundred square feet, an allowance of one-tenth watt per square foot would indicate that a total of ninety watts was required for night lighting. A twenty-five-watt lamp in each of the four indirect lighting units shown is the solution.

The location of the nurse's desk is generally at some convenient place near the entrance, and an outlet should be provided for a portable desk light to be used by the night nurse in making up the records, etc. A wall bracket or other suitable light should also be provided over the chart rack to permit its examination at night, (see Fig. 7).

The medicine cabinet should be provided with suitable light during the night so that the nurse may select the proper container without groping or making mistakes. The medicine cabinet is sometimes placed under a fixture and a drop light with rather dense translucent reflector is suspended over its glass top.

Interesting figures are obtained from the inspection of

Fig. 5. The soft, comfortable lighting produced by the indirect system is shown in this view of a ward of oblong shape using a single row of outlets. The cords for the signal system will be noted between the beds at each side of the room.

lighting conditions in the wards. Those which are equipped with both general and local illumination comprise only 42 per cent of the total, 43 per cent depend solely on general lighting, and 15 per cent on local lamps alone. The indirect methods were used in 10 per cent of the wards which possessed general systems. Bare lamps on fixtures and drop cords composed 14 per cent and gas light 2 per cent. Properly lighted wards comprised only 4 per cent of all those visited and over 90 per cent did not exceed one foot-candle intensity.

The small utility rooms for washing apparatus, sterilizing, preparing food trays and the like located adjacent to ward or in other parts of the building, as well as the dressing and nurses' rooms, should be lighted by a suitable ceiling fixture and have local units over sinks, sterilizing apparatus, or desks as the case might be. Baseboard receptacles should be provided in all of these for use with portable devices. A suitable arrangement is seen in Fig. 8.

Fig. 7. A semi-private ward lighted by a single porcelain enameled totally indirect unit. The nurse's desk with a local light located near the main control panel will be noted. Baseboard receptacles and emergency lights are properly placed.

The private room in the hospital resembles a bedroom which has been especially equipped for the care of the sick. In many instances it is highly decorated, with luxurious surroundings, similar to one in a private residence.

A well diffused general illumination and local illumination similar to that previously described may be used. The intensity need not be as high as in the ward, owing to the fact that it is used by fewer persons. The fixtures employed in lighting may be somewhat elaborate and decorative to suit any particular interior. The indirect systems are preferable for general illumination where conditions are favorable. A pleasing example of semi-indirect lighting is to be seen in Fig. 9.

The direct system may also be used for this purpose, where indirect methods are not practical, care being taken to provide suitable diffusing media. A central ceiling fixture should be supplemented by wall brackets or table lamps near the bed. These should be fitted with reflectors or decorative shades which will diffuse and direct the light where needed.

If the combination wall bracket fixture and receptacle described before are not used, a separate receptacle for heaters or instruments is necessary. Additional lights over dressers or mirrors may be provided if conditions permit. The general illumination should be controlled by a wall switch near the entrance doorway, while the local or bed lamp must have a switch within convenient reach of the patient.

Only about 10 per cent of the hospitals visited are properly lighted in the private rooms. The rest employ single fixtures with ineffective reflectors or bare lamps.

Fig. 6. Enclosing glassware which diffuses the light and which can be readily cleaned is used in this square-shaped ward for general illumination. Such lighting is simple of installation, inexpensive and a remarkable improvement over much of the equipment now in use.

Operating Rooms

The lighting requirements discussed thus far do not differ materially from those ordinarily encountered. In lighting. There are general types of operating rooms which require slightly different treatment in their lighting. The first is the type of room used in the city or private hospital, which is relatively small in size and contains merely the operating table, sterilizer, and a few necessary pieces of apparatus. The second is the operating room of the hospital connected with some educational institution and is made in the form of an auditorium for the purpose of holding lectures or clinics accompanied by demonstrations. Walls and ceiling are, or should be, pure white and in the more modern hospitals, the walls are constructed of tiling and the floor of smooth white marble for ease of cleaning and sanitation.

In the first type of room, strong illumination is needed over the operating table, with local lighting for the sterilizer and accessory appliances. There will, in general, be sufficient light reflected from these units to enable the surgeon and attendants to move about with facility.

In the auditorium type of operating room, the "pit" may be treated as just discussed, but general illumination must also be provided in the balcony to enable the class to take notes with ease. An intensity of three

or more foot-candles is desirable here and may be provided by the use of wall brackets at the rear of the top tier of seats, supplemented by properly spaced ceiling units of standard types. Wall bracket or overhead units should also be provided for general illumination of the "pit," to be used when preparing for an operation, and at other times when general illumination used is necessary here.

The lighting equipment used in the operating room must have the general sanitary and ease of cleaning qualities necessary throughout the hospital.

The main question is that of lighting the operating table proper, and the requirements for both types of room are identical in this respect. In the auditorium type of operating room it is common practice to conduct operations at night, making the demands for this class of buildings especially important. In the smaller institutions, the majority of the operations are performed in the daytime and it is only on special occasions or emergencies that artificial light is called into play.

The operating table requires a very high intensity of well diffused light of the proper color coming from several directions. High intensity is required on account of the minute details which must be observed at all times. Diffusion is necessary to eliminate shadow effects. Light of approximate daylight color is desirable in order that the blue veins, red arteries or yellow bile ducts can be distinguished one from the other. It is also essential to have light coming from several directions in order to illuminate the interior of the incision properly. Many classes of work require light from nearly a horizontal direction for penetration.

The fixture itself must be of such construction that there is no danger of dirt accumulating and falling into the wound, and must be so placed as to minimize the possibility of this action. It should radiate the minimum amount of heat in order that the surgeon and attendant may work in comfort and without danger of perspiring.

The natural illumination of the operating room should be a subject of careful study, and to secure the best results the surgery is usually located on the north side of the top floor of the institution, where minimum obstructions exist. Skylights with semi-diffusing glass constitute a part of the north wall and a considerable part of the ceiling. North light is generally well diffused and more uniform in quality and quantity than that from other points of the compass, and for this reason is preferred.

Fig. 9. A pleasing arrangement for a private room. A centrally located semi-indirect fixture provides general illumination and the decorative effect is enhanced by the table lamp and bracket unit with suitably toned diffusing shades.

The surgeon endeavors to conduct the most important operations under daylight conditions, yet he realizes that in times of emergency dependence must be had on artificial illumination. Without giving the matter careful thought, many medical men would make the claim that it is impossible to secure thoroughly satisfactory artificial lighting. This statement may be justly combated, for with discretion in the choice of equipment and with the application of sufficient electrical energy transformed into light, daylight effects can be readily simulated. The uninitiated might think that such a procedure was too costly to be practical. Such is not the case. Suppose, for example, it required a total of three thousand to five thousand watts to illuminate an operating room properly. (This is far more than necessary in most cases.) At the customary rates for electrical energy, this might cost from twenty-five to fifty cents an hour. The operating room is customarily charged for and it will be seen that this figure represents but 1 to 2 per cent of the rental of the room. Certainly proper lighting is worth this percentage.

The old methods of operating table lighting were indeed crude. One of the most common forms of fixtures consisted of a cluster of relatively small incandescent lamps arranged radially under a flat reflector. This fixture was glaring and the light came from one general direction, making shadows dense. Sometimes these fixtures were equipped with diffusing glass screens, but at best this did not produce good results. In an attempt to eliminate many of the objections of this arrangement, an elaborate scheme was developed in Germany where

Fig. 8. Night view of a utility room showing the local lighting from bracket units over the sink and sterilizing apparatus. Sufficient light is transmitted through the opalescent reflectors to provide general illumination.

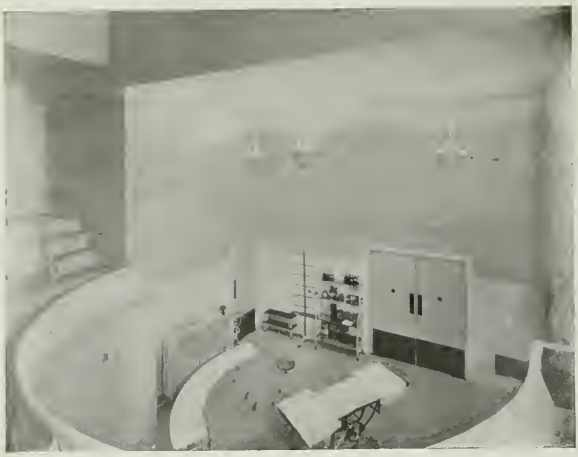


Fig. 10. Night view of an operating room of the auditorium type lighted by the indirect method. Large lamps are employed in the mirrored glass units. The distribution of light is uniform, glare is eliminated and shadow effects minimized.

a cluster of mirrors was grouped around a support, a searchlight placed outside of the room and a beam of light thrown through a lens system to the disc of mirrors and finally directed on the table. This scheme was used to some extent in Europe, but has not met with great favor in this country, as the mirrors require frequent cleaning, and in cleaning get out of adjustment. Much simpler methods of obtaining the same results have since been developed, as indicated later.

With the constantly increasing efficiency of the incandescent lamp, methods of application, which a few years ago would have been impractical on account of the high operating cost, are now most feasible. For example, north skylight can be imitated by placing daylight Mazda lamps in suitable reflectors outside of, and above the skylight, illuminating the room with light of the same character, of the same general direction and with sufficient intensity. This method is actually used in some of the more modern buildings. It is true that there is a certain amount of absorption in transmission through the glass and that the construction work is rather costly, but the splendid results obtained justify such expenditures. For general illumination of this character an intensity of thirty to fifty foot-candles is desirable and would be attained by providing from ten to fifteen watts per square foot of floor area, depending on the structural arrangement, density of the glass of the skylight, type of reflector, size of lamp used and similar details.

If such a scheme as this is not feasible, a number of other methods, as indicated in the illustrations, represent good practice. Totally indirect illumination, as pictured in Fig. 10, may be used if the ceiling is light in color and of a character suitable for reflecting the light. Mirrored glass units equipped with daylight lamps are efficient and produce evenly distributed, very well diffused (practically shadowless) illumination. Instances have been reported where indirect lighting has proven unsatisfactory for this purpose, but analysis generally reveals that inefficient wattage was used and hence an inadequate intensity of illumination secured. It must be borne in mind that work of the character carried on in the surgery demands a high degree of illumination, and to secure this, sufficient power must be used.

Where conditions preclude the application of the skylight method of general illumination by the indirect systems, special direct lighting fixtures are available. One of these is shown in Fig. 11. This consists of a pyramidal shaped metallic hood suspended over the table, fitted with mirrored glass reflectors and Mazda C lamps. The special equipment pictured is provided with an outer and inner glass cover with a space between these and a ventilating arrangement for conducting the heat away from the table. Such a device provides diffused light of a high intensity from directly above the table. The large area of the source tends to eliminate shadows. Its advantages are its simplicity and compactness. A unit of this character is entirely adequate for the less exacting operations and maternity work. It is often necessary to supplement a unit of this type with a portable lamp stand and suitable reflector to direct light on vertical surfaces.

In the attempt to obtain light from a number of directions, as in the searchlight and mirror arrangement previously mentioned, the fixture shown in Fig. 12 has been developed. This is made of nickel plated pipe, shaped like a large wheel eight feet in diameter. Eight polished steel parabolic concentrating reflectors utilizing small lamps are equally spaced about the rim. The reflectors focus the light on a rather small spot, producing a high intensity, and since a multi-directional effect is secured, some of the desired objects are attained. The diffusion is not all that is to be desired, and if the surgeon chances to glance upward, there is a possibility of objectionable glare. Inasmuch as only a small area is illuminated to a high intensity, it is necessary to supplement a unit of this character with good general illumination in order

Fig. 11. A diffusing type of operating table fixture equipped with six 100-watt Mazda C lamps in mirrored reflectors. A diffusing glass plate covers the lower side of the unit, which is so constructed as to provide for dissipating the generated heat.

that the nurses and assistants may have light to select instruments, bandages, thread needles, use sterilizers, and perform their natural functions.

A modification of this scheme of lighting which has its good features and overcomes most of its objections is shown in Figs. 13 and 14. In this arrangement twelve prismatic angle type reflectors are mounted on a framework or directly attached to the ceiling about ten feet above the floor. These are fitted with seventy-five-watt bowl enameled daylight lamps. A splendid distribution of light on the table from all directions is secured. The light is of a suitable quality, units are hung at a sufficient height so that the heat is not objectionable, the fixture construction is simple and reflectors are not located directly above the table, and any dust which might have accumulated will not fall in the wound. Since the prismatic reflectors transmit a certain percentage of light, no general illumination is needed in addition. Measurements of the illumination produced by such a layout indicate the following intensities: between forty and fifty foot-candles on the horizon plane, from twenty to thirty foot-candles on the 45 degree plane and from ten to twenty foot-candles on vertical surfaces above the table.

The investigation referred to previously, indicates that there is much to be desired in present practice. At least 90 per cent of the operating rooms inspected were equipped with a single fixture over the operating table, with an inadequate reflector of a glaring type which gave an undesirable distribution of light for this sort of work. Eight per cent of the hospitals were equipped with either of the units shown in Figs. 11 and 12, and only 7 per cent of the total were properly provided with a sufficent number of receptacles for the attachment of local lights, instruments, anesthetic apparatus, and other very essential appliances.

Laboratories

The nature of the hospital laboratory depends considerably upon the branch of medical practice to which the institution is devoted. Those confined to certain classes, as maternity or nose and throat work, have practically no demands for this part of the institution, while others, especially those used for skin and orthopedic diseases, use laboratories of considerable extent. Analytical work and bacteria culture experimentation is carried on, and the general lighting requirements are quite identical with

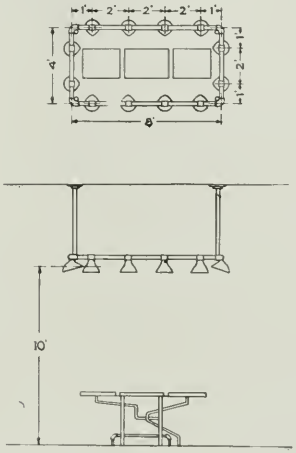


Fig. 13. Arrangement of angle type prismatic reflectors with 75-watt bowl enameled daylight lamps for illuminating the operating table.

those of the chemical laboratory. Evaporation, filtration, titration and like processes naturally demand a reasonably high intensity (five to eight foot-candles) of general illumination in order that these steps may be carefully matched.

Local lighting of the benches around the walls where the major portion of the work is carried on should be supplemented by general illumination for the center of the room where the ovens, refrigerating and sterilizing apparatus are located. As there is a possibility of a considerable amount of chemical fumes being present in the atmosphere, special attention must be paid to the choice of fixtures and equipment. Any metal work must be treated to prevent deterioration. Porcelain, rather than brass shell, sockets are to be preferred. If metal reflectors are used, they should be porcelain enameled rather than of the less permanent finishes.

One of the particular problems encountered here is the artificial illumination of the microscopic field. There are a number of special devices for this purpose. Slides of a light character can be examined readily with well diffused light of a moderate intensity. The opal bulb fifty-watt lamp gives such a character of light and has been used to some extent for this purpose.

Much of the work, however, is on slides containing dark blood fields and the like. This requires a powerful source of illumination. Until within the last few years, the arc light has been used almost exclusively for this purpose. At best, this form of illuminant is annoying on account of its flicker, and the necessity for constant adjustment of the carbons. Recent developments of lamps with concentrated filaments have eliminated these difficulties. Such an illuminant gives a steady light of uniform quality. The small size of the light emitting portion enables one to place it

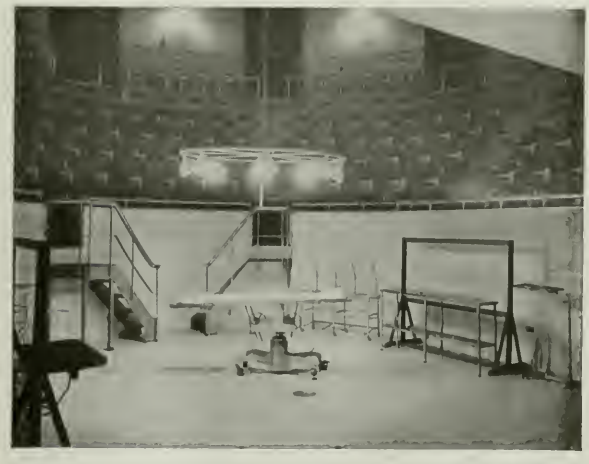


Fig. 12. The operating amphitheater of a large municipal hospital provided with the special fixture described in the text. The concentrating reflectors with 60-watt Mazda lamps direct the light at the working point.

accurately at the focus of a lens system, and obtain any concentration necessary. Frequently, low-voltage lamps, which have somewhat more concentrated filaments than those designed for operation on the standard circuits, are used for this work. By applying correctly selected dense blue glass screens the color of the transmitted light can be readily modified to an exact north sky quality.

X-Ray Room

The properties of the Roentgen rays or the apparatus used in their production are outside of the province of this publication. On the other hand, suitable artificial illumination must be provided for illuminating the rooms in which the x-ray machines are located. The old practice of using a few wall brackets or drop lights located rather indiscriminately about the room is not a condition to be desired. Low hung fixtures are objectionable, being in the way of wiring and control apparatus. Suitable diffusing direct lighting fixtures placed close to the ceiling to give even illumination of three to five foot-candles are preferable. Baseboard receptacles should be provided at convenient intervals around the room for portable lamps or auxiliary appliances which may be necessary.

General lighting is also desirable in the fluoroscopic room, and the fixture should be so wired that the lights are operated by a switch on the foot pedal which controls the x-ray apparatus. The small dimmer light should also be operated from this foot pedal. Some such arrangement as this is most essential in order that the person using the table may switch off, dim, or turn on the lights without moving from the x-ray control. If he must first turn off the x-ray apparatus and then stumble about in the dark hunting for a wall switch or socket, confusion and breakage of valuable apparatus may result.

After the x-ray negative is obtained, it is necessary to examine it very carefully to determine the nature of the ailment or the extent of the fracture. Considerable experimentation has been carried on to ascertain the best method of providing light for this purpose. Extremely well diffused illumination of approximately daylight character has given the best results. It is a simple matter to construct a box or frame work, the mouth of which is covered with diffusing glass. Daylight lamps in efficient reflectors are located behind the frame work and their light directed on a flat white background. From here it is diffusely reflected to the opalescent glass plate and thence through the negative.

Wiring and Signal Systems

The source of current supply in any public building must be dependable. This condition is particularly true in the hospital where the occupants are in a critical physical condition. The most exacting demands exist in the operating room, where the failure of illumination might have a fatal result.

Some of the larger hospitals have their own generating plant and the possibility of this being out of service should be anticipated and breakdown service, from the central station, installed. Many isolated plants are designed for a 220-volt system, which is not desirable from the standpoint of lighting service. As to the choice of system, it must be borne in mind that alternating current is necessary for the x-ray apparatus and in case of a direct current installation, a motor-generator set must be provided for this purpose.

Whether the hospital has its own plant or whether the current is supplied by a central station, the building should be so wired that the blowing of a fuse will not extinguish all of the lights in any section of the building. The circuits in the wards and corridors, for example, should be so arranged that part of the lights are on one circuit and part on another. In some instances, duplicate panel boards with emergency switching and plugging arrangements are installed to make possible a quick change over.

An emergency system in the operating room is particularly important, so that even the failure of the entire electric supply will not throw the room into darkness. Gas as an auxiliary is at best a makeshift, for it is not likely that suitable equipment will be installed to give satisfactory illumination with gas. As ether is used as an anesthetic, it is not particularly safe to have an open flame near the spot where this is being administered. A small storage battery of sufficient capacity to light the operating room for a given period of time is a most desirable feature. The mere throw of a switch in such an installation takes care of any emergency. The care required by a storage battery is not excessive, and most hospitals have a plant engineer who is thoroughly competent to maintain the battery. Smaller lower voltage batteries are also very useful for furnishing current for miniature surgical lamps and microscope illumination.

The signal system in the hospital, an important element, also employs the storage battery for its operation. The modern type of signal devices are noiseless and the old bell or buzzer for calling the nurse or attendant is a thing of the past. Two general methods are employed for the purpose, one utilizes a semaphore or small arm which drops from a vertical to horizontal position over the door or nurse's desk. The latest system has a push button by the patient's bed which, when operated, lights a signal lamp over the nurse's desk and one by the bed, or outside of the door in the case of a private room. When the signal lights, the nurse glances down the ward or corridor and locates the patient who requires attention. These lights are left burning until the nurse responds, who extinguishes them by inserting a special key in the push button switch.

Fig. 14. Night view of the operating room of an industrial clinic. Notice the excellent distribution and quality of light.

THE MARKET'S TREND*

By C. B. EVANS, The Economist, Chicago, Ill.

TO PERSONS who sell service and buy commodities, the question of market price is of far more importance than to those who are exchanging commodity for commodity. The present time offers an unusual opportunity for the exercise of judgment as to prices and the probabilities for the future. The weight of evidence is against the wisdom of buying now, at least anything that has not been marked down sharply. On the average, wholesale prices of 100 commodities in the United States have declined 34½ per cent from the top scored during the war boom, but recent purchases at the reduced figures have left merchants with a loss when they came to selling their merchandise. This has been distinctively true with respect to fabrics, copper, leather, and rubber, the latter commodity going from a price of fifty cents at the opening of the year in our markets, to eighteen cents, the lowest figure in the history of the trade. In this country there has been little or no upward reaction in price after a decline has been recorded, but curiously, in England there was an upturn in the average December 1, as reported by the Board of Trade, which immediately led to an advance in the wages of employees in the Bradford weaving mills.

Some of the phenomena of trade have led to the opinion on the part of leading students or fairly well qualified judges, that we shall have a revival of trade in the spring, which would lead to higher quotations. The basis for that guess is a large reduction in the supplies of goods due to suspension by the mills. It will then be a question of the buying capacity of the public, which has been much curtailed by shrinkage in the values of farm products. Whatever may be the outcome of these predictions, it seems certain that further declines must be limited by labor value, and for the present the reductions in wages are extremely small. The man who works with his hands must come down nearer to the salaries paid to professional men, before anything that can be distinctly called liquidation in labor shall occur.

The clearest thing in the situation is the unwisdom of engaging in any line of building construction. This is especially true at the great centers, such as Chicago and New York, where not only are the workers receiving extraordinary wages, when they work at all, but there is a combination, including union men, contractors and material men, whose sole purpose appears to be to keep costs up to their present levels. Thus, in Chicago, buildings are constructed only to meet the most imperative needs or to secure extraordinary rentals. As a consequence of such conditions, permits for the construction of buildings in 156 cities of the United States in October called for less than $93,000,000 against $146,000,000 in the corresponding month of 1919. This is in spite of an insistent demand for more accommodations.

A partial remedy for this situation may be found in immigration, which threatens to be on even a larger scale than the most zealous champion of low wages could desire. Europe is largely tired of Europe—and no wonder—and is coming over by the millions. Much of this labor will be inefficient, but it will have its effect on the average. There should be a good supply in this country of all means for combating disease and pauperism, for human wrecks are said to be coming this way in large numbers. Even this country is not to be immune from the traditional after-effects of war. Legislation now pending is designed to prevent such evils, but more particularly to meet the wage demands of the trade unions.

Some of the authorities, closest to the handling of leading articles of merchandise, have reached the conviction that raw materials are now at bottom prices. This is not surprising in view of the slump in grain, cotton, live stock, wool, hides and leather, rubber and copper, some of which items are below the average of pre-war times. There is a possible chance for error in drawing inferences from these figures, for in the case of all these commodities there is labor, intermediate between the primary article and that which reaches the hand of the consumer. In the case of fabrics, however, the finished article has gone even beyond the raw material in its decline. These goods are now sold, not on a schedule, but for what they will bring. Raw silk, partly because of the breakdown in Japan, and partly because of the excessive supply that was long hoarded in the warehouses of the United States, has gone to a third of its war price and shows little tendency to react.

The one article which stands as a stay against declining prices is steel. True, that commodity has reacted from its highest prices but this is through sales by the independent companies, that is, companies other than the United States Steel Corporation, which for a year and a half have maintained prices of their own, and are now obliged to let down toward the schedule of the Steel Corporation. Present indications are that the schedule of that concern will not be changed in the near future, even though the demand for its products shall fall off. So clear is it to the International Harvester Company that its materials, of which steel is the most important, will not decline much that it has issued to its customers a statement of regret that it cannot place any lower figures on its manufactures. It is natural to conclude that furniture, implements and instruments made of steel will decline little.

It is not quite true that this country can buy from the rest of the world anything it wants at its own price, but poverty, disorganization and unfavorable exchange rates have placed all nations, from China to Great Britain, in a position where they are anxious to sell. This is of special interest to us with respect to Germany and the other central European countries.

Some of the most needed articles for individual, home or hospital are produced in their highest perfection by European countries and these countries are back in the world to get trade. They will sell to buyers thousands of miles away at lower figures than are quoted in their own countries. The chemical and dye interests of the United States have grown somewhat during the war period, but there are surely many articles in which Europe is our superior, at least with price taken into account. Some of the goods are here and more are on the way. In the first nine months of this year one European nation sent to the United States 1,574 tons of dyestuffs and intermediates, valued at $6,000,000.

Among American products of interest to the medical profession one may note that quicksilver, formerly a familiar figure in the market at one hundred dollars per

*With this article, The Modern Hospital inaugurates an authoritative market service that will be a regular monthly feature. Obviously it is impossible to present more than a limited digest of conditions affecting the commodity market in this country. Distinct reference, however, will be made in succeeding articles to the commodities in which the hospital field is interested.—Editor.

flask, has lately been quoted down to fifty dollars. We probably shall have to depend more in the future on the Spanish and Italian mines than heretofore, as a number of the American mines are in process of abandonment. In view of the attitude of European producers of various articles, however, this need not have much effect on the price.

Prominent among American products are those which come out of the carboniferous strata far down in the earth. Coal tar products have been rather weak lately, in sympathy with the declining prices in other things, but here again Europe with its cheap labor and its anxiety to get back into the world is likely to give us cut prices. As to petroleum and its derivatives, little is to be expected if we are to measure conditions by the prices and demand for crude oil and gasoline. There has yet been no decline in petroleum at the mouth of the well except in comparatively small areas in the Louisiana district. Texas oil sells at three dollars per barrel just as it comes out of the well, and one of the best authorities gives it as his opinion that there will be no decline in petroleum except a small one in gasoline during the cold months.

In running down through the latest quotations in the general list of chemicals and drugs, one sees dullness and weak prices all the way along. The large buyer is likely at any time to have a great quantity of a given article thrown at him at a figure which will surprise him by its lowness. There is an excellent chance here for good judgment as to how long this will last, for scare is a temporary condition, and low figures lead to curtailment of production.

The relation of the money market to these things is not specially close at this time. As a general principle, the more money, that is, the more units of gold or paper, the higher the price, and our money supply is now at about the highest point in a long period of inflation, but statistical facts in the commodity markets are ruling now, plus a mood on the part of the holder which makes him an easy victim to the manipulator for a low price. On any rather sharp decline in a commodity it is probably wise to buy now, for the market is not a smooth inclined plane on which prices slide to the bottom, but rather a stairway with many landings.

The following is a table of prices made up by the New York Federal Reserve agent. To avoid any misunderstanding it is necessary to say that the changes mean declines in the aggregate value of a large number of commercial articles, whereas the change noted in the first part of this article related to index numbers such for example as a decline from twenty to fifteen, which would be 25 per cent.

WHOLESALE PRICE INDICES

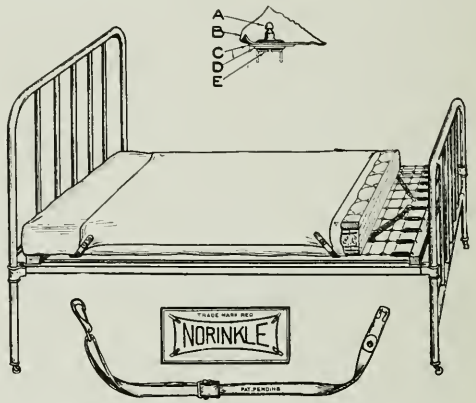
Country.	Per cent decline during latest month reported.	Per cent decline from highest.
United States—		
Bureau of labor	7.0	17.3
This bank's index (12 basic commodities)	5.2	33.5
Dun's	4.3	13.7
Bradstreet's	7.3	24.9
British—		
Economist	6.2	14.1
Statist	3.4	9.9
French	4.4	13.9
Italian	.8*	2.1
Japanese	2.1	28.3
Canadian	2.9	11.0
Swedish	4.4	6.2
Australian	2.5	2.5
Calcutta	1.0	5.5

*Increase.

The wide variations in the percentages of decline from the top are due to the differences in the classes of commodities, and the number selected by the statisticians and the wide range of localities. Prices have declined since these figures were made, but tabulations have not been completed.

STRAPS FOR RUBBER SHEETS

One of the greatest sources of discomfort in a hospital is the necessity for using rubber sheets on hospital beds. In order to get away from the wrinkling of these sheets, institutions in the past have purchased rubber sheets, rubberized on drills of light weight canvas. To anyone who has been a patient in a hospital, there is no necessity for an elaboration of the discomforts of this sheet. By reason of the fact that a lighter weight sheet would wrinkle and cause greater discomfort, there has been no inclination to use such a one. In addition, in order to properly make up a hospital bed, approximately one yard of sheeting over and above the amount necessary has been used, to permit of folding it under the mattress.



There has been placed on the market a very simple set of straps that can be fastened to the spring, which are easily detached, and very durable. These straps make it possible to cut the sheet only three inches wider than the mattress, and hold it absolutely taut. With the use of a lighter weight of rubber sheeting and the consequent saving of price, combined with the saving incident to using a smaller sheet, to say nothing of the added comfort to the patients, it is believed that the commodity will easily justify the initial outlay necessary.

LARGE TYPE SPHYGMOMANOMETER

One of the manufacturers of a standard sphygmomanometer recommends the use of the larger type sphygmomanometer particularly for institution purposes.

This company states that for the past several years there has been a growing tendency on the part of diagnosticians to study more and more closely the single beats of the hand of the sphygmomanometer when taking blood pressure readings. It is in the study of the single systole that the large type proves particularly valuable. The value of the sphygmograph and recording sphygmomanometer has always been recognized, but the inconvenience and difficulty attending their employment has greatly restricted their use. With this latest development of the sphygmomanometer, however, the manufacturer states that practically the same results can be obtained as with the sphygmograph, with the exception, of course, of furnishing a written record.

The delicate construction of the instrument gives a true representation of the arterial wave, magnified to such a degree that any abnormality may be easily detected, such as a small dicrotic notch or *pulsus bigeminis*.

Occupational Therapy and Industrial Rehabilitation

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass.

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OCCUPATIONAL THERAPY IN HEART DISEASE*

BY FREDERIC BRUSH, M.D., MEDICAL DIRECTOR, THE BURKE FOUNDATION, WHITE PLAINS, N. Y.

THE two or more millions of people in the United States who have heart disease should rightly be included in the class of the handicapped, making a larger proportion thereof than is generally realized. In numbers they evidently come second only to nervous and mental defectives. Their degree of handicap varies from none to total; but the majority may with controlled and directed careers lead productive and fairly comfortable lives. They are known to rate well above the average, of the variously handicapped, in success qualities.

While the heart disease problem comprises, broadly, prevention, treatment, and occupation, we are concerned here only with a discussion of the applications of work therapy in rehabilitation. It is to be understood that suitable gymnastic exercises and active recreational therapies are proper complements of this work.

For our purpose but two classes of patients need be recognized—those with definite valvular or muscular heart defects, and the so-called neurocirculatory asthenia ("effort-syndrome" or "irritable heart") group; and but little distinction should be made between these in the convalescent stages of the therapy. The latter may be pressed a little more boldly from the start, and graduated sooner into sub-normal or full wage-work. There occur many exceptions to this, however, the psychoneurotic element being frequently a serious deterring factor with the latter class. This paper is mainly based upon an experience with over 2,500 cases of heart disease, of which more than 2,000 had valvular deficiencies.

Inhibitions to Normal Life Eradicated Gradually

First to be overcome with cardiacs is the composite of prohibitions, fears, and ineptitudes—the result generally of persistent wrong advice of physicians, relatives, employers, teachers. Even the rapidly extending organization for cardiac relief has at times fostered this condition by over-separating and stressing the disability, until the prescription has seemingly amounted to no school, stairs, play, dance, work—resulting, generally, in "no good." The standard best attitude toward the cardiac now is: inform but don't scare; plan to keep going in the work-a-day world. A series of "don'ts" and "can'ts" is to be replaced by "do's" and "can's," until the person is restless and ambitious to venture nearly normal work-play life.

In order to discern the place of occupational therapy in heart disease, a cycle of the best reconstructive régime may well be outlined. The patient recovering from an acute disablement is given light hand-work in bed or chair and exercised up to fitness for transfer to the convalescent home, where he is graduated, in a four to nine weeks period, through gymnastic exercises, diversional occupation, increasingly active physical play and grade walking, and short hours of actual work about the institution, often for a handicapped wage. Gradual advance to full time employment in the institution, with retention of medical oversight, leads to a return later to the former job or to another, expertly chosen by the follow-up agency —with expectation of reasonable steadiness of employment in competitive life, variously modified.

Various Therapeutic and Restorative Procedures Available

Therapeutic occupation, as usually understood, has a definite but limited part in this scheme. It fails of wider use because it does not furnish enough physical exercise. Its highest value is mental, in overcoming doubts, inertias, and deteriorate habits. It gives a practical and most valuable test, and a basis for further advances. Its application may begin modestly in the hospital or the home, finds fullest opportunity in the convalescent institution, and should be applied as well to the more seriously crippled cardiacs wherever located, whether in institutions for chronic diseases or elsewhere. The most promising field of extension now is the general hospital, where occupational therapy would not only benefit heart patients directly, but would tend to influence physicians to give

Carpentry is one of the practical fields of industry which the cardiac may safely enter.

*Read at the convention of the National Society for the Promotion of Occupational Therapy, Philadelphia, 1920.

the longer stay commonly denied, and yet so urgently needed.

Practically all kinds of standard restorative occupations are applicable to the convalescent stage of heart disease. The usual adjustments of the work to nerve states, aptitudes, and to temperamental conditions is assumed. Those with low heart and general reserve power are given sitting or lighter shop details, but are soon graded into work requiring more exertion. It is instructive to see these patients take on increasing physical activities, with steady gains in cardiac reserve, until they are, simultaneously with participation in active sports, walking, stair-climbing, gardening, lawn-mowing, pick-and-shoveling, chopping, lifting and carrying, etc. Thus the occupations giving most exercise, outdoor and near normal, are favored. Especially should the patient be urged to do the work that he feels sure he cannot do, for mental therapy reasons. Objection and demur are the rule, but the entire list gives almost no occupations that prove detrimental.

Sewing, taught in groups such as this, will furnish a livelihood for a woman who perhaps, up to this time, has belonged to the nonproductive class.

Vocational training, while not strictly within this subject, so interweaves with it as to invite discussion. Abundant experience here and abroad shows that cardiacs suitable for constructive institutional convalescence require an average stay of about five weeks only—three to ten weeks, fitting the various kinds and degrees of disability. Longer terms add little or nothing to the benefits, and are in themselves often detrimental in causing detachments from normal life, from family, school, job, friends, and helpers. Vocational education should not be attempted in this period, which is well occupied with the upbuilding activities as noted above.

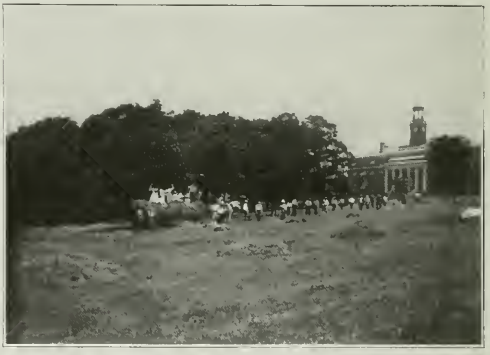
Continuation schooling for children is, of course, desirable; and a small amount of prevocational direction may be given to those remaining the longer terms. A small percentage only of cardiacs will ever pass through such institutions. Any vocational aid plan worth while should include the majority. This may be accomplished by using, after good convalescence, the established standard instrumentalities, the public and trade schools, the office, factory, store, and workshop. The cost is negligible; and the needed personal influence support is kept near at hand. Adequate direction and medical oversight are provided by the parents, school staffs, special heart clinics, social welfare agencies, private physicians, etc. Modest financial assistance may well be given in some instances. Right work placement and follow-up are essential. Employment bureaus for the handicapped in the large centers are also greatly needed.

Broader Conception of Work Therapy

By thus widening the conception of work therapy we include the phases that vitally concern the heart handicapped. "On the job" therapy is of the most importance to them. Schooling and home keeping are understood as full life work. The recent management of a heart diseased youth may give pointed illustration. After the physical and mental exercise convalescence period, he was placed in the office of a sympathetic and understanding architect to learn the business, on a fair wage, was given reasonable hours, daily rest period, and time to visit medical and social service sponsors, and with increasing endurance took on technical studies in the schools. Within two years he has advanced quite rapidlly, and has prospects little inferior to the normal. He keeps in contact with expert advisers. This is long-term occupational therapy at its best.

Special factories for cardiacs only, are of doubtful feasibility, and can benefit only a comparatively few. But through school and office, store, shop, garage, garden, hotel and factory, these seriously handicapped persons may be trained and guided, and fitted for measurably full and successful lives. And thus far, the only practical test of fitness for selected work is trial in the work. Soon the work becomes more than test; is best continuing therapy.

The question of what the heart diseased can do is rightly answered by learning of what they have done and are doing successfully. "Go to the country," is ill advice still too frequently given. Readjustment near home and in or allied to the former line of occupation is generally wisest. Exceptions, as in changing from too heavy physical stresses, are, of course, required. Nerve and mental and social tensions are constantly underestimated as contributory factors in heart overstrain.



Haying, strenuous as it is, seems to agree with these patients.

Surveys following six years of special heart direction, convalescent reconstruction, occupational replacement and adjustment, and follow-up of cardiacs now numbering in thousands afford inspiring confirmation of the value of work therapy as here interpreted. The branches of activity which may be taken up are manifold. Accounting, architecture, work on automobiles, bookkeeping, bookbinding, basketry and cane work, all kinds of clerical work, card indexing, checking, gardening, stenography, salesmanship (if the samples are not too heavy), sewing,

shoemaking and cobbling, typewriting, typesetting, tailoring, millinery, music, nursing, packing, painting, printing, and publicity. Various industries offer opportunities, such as doll factories, garment factories, biscuit companies, piano factories and tuning organizations, wire industries, wicker furniture factories. Also such positions as helper on country places, electrician, elevator runner, electric machine operator, engraver, errand runner, janitor, worker in kitchen, or ticket taker are possible to the cardiac.

Consider from the above the varied opportunities indicated under such simple headings as clerical, small business, department store, jewelry trade, telephone, salesmanship, factory, home making, and the impracticability of segregating for purposes of trade teaching. These millions of safe and desirable handicapped have nearly full right of choice in mode of living, and are very prone to exercise it. Medical, industrial, and social adjustment in the "working world about," should give main direction to organized welfare in their behalf.

OCCUPATIONAL THERAPY FORECASTS AND SUGGESTIONS

By HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass.

The art of prescribed work for the handicapped will continue to hold a high place, and to progress, for it is one of the expressions of an abiding principle. But the technic of the art, its practical application, is due for many changes, improvements, and readjustments.

Occupational therapy has been accepted so readily, and our preparation has been so hasty, that the demands for aides already exceeds the supply. The danger is that we shall rush new teachers into the field too fast, and so bring them and the system into disrepute. We cannot afford to be hurried.

It might be possible to benefit hospitals and the cause, if we could establish a novitiate training in the wards. This would imply the presence of highly competent head aides, of which there are none too many. Some of the successful aides have gone out of service since the war, but might be called back if sufficiently attractive teaching positions were offered. It is a strange state of affairs when the hospitals are calling for finished aides before the schools have fully standardized their courses. But we can comfort ourselves with the assurance that there are many experienced aides in service, who are setting high standards and who are gaining wide experience. Moreover, the schools are steadily advancing in their requirements and in the quality of their teaching staffs.

The aides already in service are doing splendid work, but they must remember always that the profession is plastic and progressive. They should keep in touch with the schools and through the national and local societies keep up with the progress made. It is a healthy sign that local societies are multiplying; they should have frequent meetings and full discussions. Such societies will undoubtedly be a very valuable means of communication between members of the profession, and thus a means of progress. The National Society merits full support, for only through its publications, and through the opportunity given by its annual meetings, can the whole country benefit by local experiences. Every member of a state or school society should belong to it. Application blanks may be obtained by addressing Mr. Louis J. Haas, treasurer, Bloomingdale Hospital, White Plains, N. Y. We need a national consciousness. Local pride is right and proper, but our cause is nation wide.

POINTS ON PREOPERATIVE CARE

Preparation of the patient for the operation is as much the duty of the anesthetist as administration of the anesthetic. Time required for the preparation is dependent upon the kind of operation, but at all events the start should be made as soon as the surgeon has decided on the operation. Keeping the patient in the hospital for preoperation care whether the minimum time of 48 hours or the maximum of several weeks is not, as has been so often supposed, a disadvantage which is apt to create super-nervousness; but may on the contrary react favorably in acclimating the patient to the hospital and in acquainting him with the nurse.

A full physical examination is the foundation for preoperative care. With it should go a quantitative and qualitative examination of the urine which will give not only the results of a simple chemical analysis but also accurate knowledge of quantity, of presence or absence of albumen, sugar, acetone, diacetic acid, and of specific gravity. Particularly important is the test for acetone. A great deal of worry and anxiety may be saved if considerable use is made of the safety signals explained by the work of Polck on "Blood Pressure" and "Phthaleim Output," the value and importance of which are reinforced by McKesson, Miller, and others in their work on blood examinations. Also functional tests and examinations for acetone should not be neglected. Among the most trying obstacles—one which can be in large measure avoided if more extended use is made of the clinical laboratory—is acidosis. Laboratory work for diabetics too is of inestimable value.

Preoperative care is also a sign of advance from the obsolete idea of starving patients to the sane position of sending them to the operation in as sound physical condition as possible so that their convalescence may be shorter and more pleasant.

All of these examinations are made and this preoperative care taken with a view not to enlarging the difficulties of surgery but to enhancing the opportunities for success of the surgeon and the peace and comfort of the patient.

HEALTH THROUGH HARD WORK

The physique of the great majority of English women engaged in industry has been distinctly improved as a result of wartime experience in rationing and exercise resulting in the more strenuous occupations taken up by women, according to Dr. Winifred Cullis, Professor of Physiology in the London School of Medicine for Women, University of London, in an interview recently reported by the *New York Times*. Dr. Cullis says the physique of English women is much above the physique of women in this country and Canada. This was clearly shown by the resistance English women showed to fatigue in the hard work of munitions factories, she said.

"The improved wages which the women workers now receive will enable them to continue on a sane, healthful diet," said Dr. Cullis. "It was lack of money rather than a taste for sweets-and-pickles type of luncheon which forced the girls to buy this non-nourishing food, but with the improvement in the wage scale the girls turned to better food, and the good old roast beef and vegetables had their day.

"A woman is not being a good woman unless she looks after her body as well as her soul. This is becoming increasingly evident every day. I believe that nearly every one can work eight hours a day without any likelihood of bad results to their physique, either while engaged in the work or in the future.

HEALTH AND MODERN INDUSTRY

HOSPITAL DEPARTMENT OF INDUSTRIAL PLANT SUPERVISES SAFETY WORK

BY SANFORD DEHART, M.D., DIRECTOR OF HOSPITAL, R. K. LEBLOND MACHINE TOOL COMPANY, CINCINNATI, O.

MANY industrial managers of concerns employing less than one thousand persons are of the opinion that they are not justified in employing a full time safety engineer.

The safety and accident prevention work of a factory, whether large or small, requires constant supervision. Sometimes this work can be delegated to the employment man, but more often it can be handled by the medical department. Realizing this, the R. K. LeBlond Machine Tool Company has placed the accident prevention under the supervision of the hospital department.

The hospital department of any plant is a clearing house, through which the injured must necessarily pass. If the medical director is alert, he can usually make remedial suggestions, so that at least the same condition is not productive of a similar accident, even though he may not have originality enough to anticipate accidents, or sufficient engineering skill to design a guard. The prevention of industrial accidents is as much a selling problem as it is an engineering problem. A selling problem not only to the workman and foreman but to the higher executives as well.

Causes Contributing to Accidents

We who are engaged in hospital and accident prevention work know that a number of different causes contribute to the accident problem. For the sake of convenience, they may be divided into three groups, mechanical, physiological, and psychological.

Mechanical deficiencies can often be remedied by enlisting the cooperation of the engineering department. This department then sees to it that warning signs and safety devices are provided. When a new machine is to be guarded or additional safeguards placed on old machines, it is generally a good plan to confer with the operator, whose suggestions are often worthy of adoption.

Physiological causes may be due to a sleepless night, tooth-ache, mental worry, venereal disease, or in fact any disease. I have known a simple coryza to be indirectly responsible for causing an accident. In the LeBlond plant, we have not found fatigue to be an important factor in causing accidents. Fatigue, as we all know, is a complex problem and not easily interpreted, the identification and measurement of the condition of industrial fatigue in a machine tool plant is by no means an easy one. The workman's capacity for turning out work is a poor index to the amount of fatigue present. Fatigue control in the machine tool industry at this time presents a difficult problem. The accident frequency rates in certain heavy industries, such as the iron and steel, might possibly be influenced by fatigue. Last year, beginning May 1 and ending September 30, an intensive campaign of accident prevention was inaugurated by the LeBlond Company. Every item that might enter into the accident problem was taken into consideration. These months were selected because of the belief that fatigue is a prominent cause of accidents, and this cause would be present more frequently during the summer months. During this period sixty hours were lost through injuries among 1,000 employees. During the month of June there was no time lost, and in August there were ten hours lost.

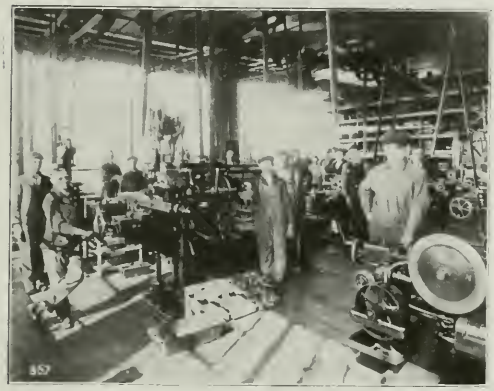
The psychological causes of accidents are ignorance, carelessness, over-familiarity with employment, unfamiliarity with employment, lack of confidence, lack of discipline, and the susceptibility of the individual to accidents. Accidents do not always happen as the result of objective danger. Individual characteristics of the employee have considerable to do with accidents. It has long been known that the human factor is the chief factor in 80 per cent of the accidents, safety engineers generally agree that

Apprentice school, where the boys receive instruction in shop mathematics, and methods for accident prevention.

no more than 20 per cent of the industrial accidents can be prevented by safety devices or any kind of mechanical equipment. In plants where considerable guarding has already been done in conformity with state or insurance company requirements, an analysis of the accidents which still occur will generally show that no more than 5 or 10 per cent of them can be prevented by other guarding.

Hazards in Machine Tool Industry

Since I am at present engaged in looking after the hospital and safety work of a large machine tool plant, I shall confine my contribution to the prevailing hazards



Shop training school.

of this industry, and the methods pursued in reducing accidents and absenteeism. Many of the conditions mentioned and the remedies suggested are equally applicable to other industries.

The prime requisite for establishing a safety department, which is to be operated in connection with the hospital department, is to procure the foremen's cooperation. Very little can be accomplished without their cooperation and good will.

It is also of importance to plat the factory in departments, so that an idea may be gained as to the accident frequency of certain hazardous departments. When the accident frequency has been ascertained, a remedy can usually be applied. To illustrate, our records showed there were a great many men coming into our hospital from the paint department, with foreign bodies in their eyes. Many of them were suffering also from respiratory conditions. These men were kept under observation for five months, and were instructed to wear respirators to prevent industrial respiratory conditions, and goggles to prevent the foreign bodies blowing into their eyes. Notwithstanding all the safety education, there was very little accomplished in reducing the hazards in this department. Traumatic conjunctivitis, blepharitis, and keratitis were particularly prevalent. We conferred with our engineering department, and with their cooperation an exhaust bench was installed, which has practically eliminated these conditions.

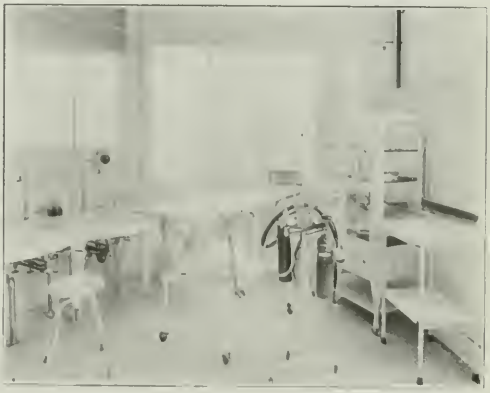
A brief description of this device will not be inappropriate. It is simply a bench built along standard lines, connected with an exhaust fan system. The dust, dirt, lead, and other ingredients of the paint are sucked through this exhaust system, through grill work in the top of the bench, and disposed of outside of the shop. The benches are of the standard type adopted for work benches, being made of standard and interchangeable parts, such as legs, drawers, runners and other material, which are carried in stock in interchangeable units, and assembled as required. Each of these grills is connected by a independent duct with the main exhaust line, which parallels the length of the bench and is connected to a large fan, which exhausts into a large vertical duct running through the roof of the building.

All of the painting and filling of cast iron parts, with the incidental rubbing down between the application of various coats, is done on this bench. All the grinding of small parts, which have to be ground to remove rough edges, which the painter would otherwise have to chip off, is also done on this bench.

Careful records have been kept in the hospital department, and the employees of this department placed under special observation for respiratory and eye conditions. This device has been in operation for fourteen months and the results obtained have been gratifying. Blue prints of the device will be sent to interested persons.

Grinding Wheels Dangerous

Grinding wheels are also a constant source of danger. The hazard of bursting grinding wheels has long been recognized, and effective guards have been designed to minimize the danger. There is also the additional hazard of the fiying sparks, which often become embedded in the cornea, if goggles are not worn. Occasionally a piece of emery will become adherent to the eye, even when goggles are worn. This hazard can be greatly minimized by placing a glass shield over the wheel. The grinding wheel department of any plant is the one department which furnishes an incentive to the safety man to continue safety work. In one machine shop 40 per cent of the men reporting for treatment were suffering with foreign bodies in the eyes. In one year's time the medical and safety men of this shop were able to reduce the eye



This operating room has been used only twice in the last three years.

injuries to 7 per cent of the total number treated in the hospital for all causes. Most manufacturers of grinding wheels provide a hooded guard, to withstand the shock of the bursting wheel. The guard is adjusted close to the wheel and extends over the top of the wheel to a point at least thirty degree beyond a vertical line drawn through the center of the wheel.

Grinding wheels should, when practicable, be provided

with safety flanges. The principal function of the safety man in connection with grinding wheels is to see to it that the guards are in proper place, that they are not removed, that they do not interfere with the operation, and that the operators wear goggles. An approximate idea may be gained of the hazard present in grinding wheels, when you take into consideration that in actual practice wheels are run at a surface speed of from 4,000 to 6,000 feet per minute up to as high as 7,000. To reduce the hazard of breaking, it is recommended that for most operations surface speeds should not exceed 6,000 feet. As a wheel wears down, the speed is increased to maintain the same surface speed, and great care must be exercised when a new wheel is provided, to avoid overspeeding.

Among the other hazards of the machine shop that might be, and usually are, productive of accidents are oily floors which become slippery. Mopping floors with a solution of sal soda will greatly minimize this hazard.

Crowded aisles are another hazard. Safety aisles should be layed out, one for "up" travel, and one for "down" travel. Each truck should be equipped with a horn or bell to warn of its approach. The internal transportation of materials affords a serious danger.

Overhead electric cranes require considerable safety supervision. The General Electric Company has issued a safety pamphlet on this subject, which is very interesting and instructive. The writer would also suggest that all overhead cranes be operated by foot in stead of by hand.

Sacro-iliac sprains are usually very common around the machine shop and they are the bane of the medical attendant's life. We have greatly reduced our "sprained back cases" by teaching the men in heavy lifting departments the proper way to lift. A pamphlet describing the proper way to lift may be procured from the National Safety Council. There are also a number of lantern slides procurable which teach the employees to guard against such injuries.

Overcrowding Contributes to Danger

Overcrowding of machines or limited aisle space presents a serious hazard. In plants where machines are placed close together the accident rate is invariably higher than those in which there is ample space provided.

All open gears should be protected by a guard, these guards to be in accordance with the state regulations. Cleaning, adjusting, oiling, or repairing machines while in motion should be strictly prohibited. Loose hair and loose garments constitute a serious danger through their liability to become entangled, or caught in drills, or other tools.

Finger rings should not be worn in the shops, as there is always a possibility of their becoming caught in the tools. Also, when a finger is injured upon which a ring is worn, the ring usually has to be filed or snipped off, which occasions a great deal of pain and renders the initial treatment of the wound difficult. Fingers should be bandaged so there will be no loose ends to become entangled in the tools. Painting the bandage with a mixture of collodion and thymol iodid will prevent the bandage from fraying.

In arduous occupations, the workers should be examined for congenital hernia.

All protruding set screws should be eliminated as far as practicable. They should be either counter sunk, or they may be made of hollow form, flush with the collar.

Chipping operations present a serious hazard. This can be minimized by placing a screen between chipper and fellow employee. In this connection, a man operating a compressed air blower should be instructed to wear goggles, and also warn his fellow employees when he is going to use a blower.

Nose and throat room.

Emery, carborundum, and polishing wheels should be equipped with blower and exhaust system, and the men of this department kept under observation for respiratory conditions.

Automatic belt shifters should be substituted for the ordinary wood belt poles. Belts may be reckoned among the industrial appliances which have been productive of a great many serious accidents. These have come largely from the hands coming in contact with the metal lacing. These lacerations are generally severe, requiring suturing. This type of injury can be largely eliminated by the substitution of rawhide or leather lacing, instead of the metal lacing.

Stairways should be equipped with safety treads, and kept free from litter.

Workmen operating crane chains should be cautioned of the danger of catching fingers in links of the chain. I have found, however, even with the best safety education, some of our older workmen will inadvertently put their fingers in these links.

Defective tools and appliances are always a source of injury to the workers. Broken hammer or chisel handles, wrenches, screw drivers, mushroom headed hammers, all contribute their quota to the accident list, and a great many times they exceed their quota.

As a general proposition, the medical attendant will be informed of the danger of the workmen using defective tools, via some workman coming into the hospital with an injury from that cause. This should be his cue to make, as far as possible, a general survey of the tools in use. This will require some tact, but it can be accomplished.

Weights and Falling Objects Serious Problem

It has been well known for some years that moving machinery is not as productive of serious injuries as weights and falling objects. The frequency rate of machine accidents is somewhat high, but the severity rate is comparatively low. Up to this writing, November 24, 1920, we have not had an amputated finger or a finger necessitating amputation in our plant for the past three years. This is remarkable in view of the fact that the fingers are the most exposed part of the anatomy. In

this connection, I might add that we have an operating room in the LeBlond hospital, but we have had occasion to use it only twice in the past three years. We have had, however, some serious contusions from weights and falling objects. The heavy lifting departments exhibit the most striking opposition between severity rates and frequency rates.

Corrugated hammers will reduce the flying nail hazard in any shop considerably. Broken or weak ladders, or ladders with missing rungs should be destroyed. In this connection, it is recommended that ladders be equipped with metal points or lead coated bases for wooden floors, carborundum bases for use on iron floors. Pivoted lead shoes of carborundum are recommended when ladders are to be used on concrete floors, and recessed rubber bases when used on wet floors.

In suggesting these safety devices I have been guided solely by the accidents occurring in three plants for the past four years. There may be other hazards in the machine shop that I have not mentioned, but those I have mentioned have, in my experience, caused the most accidents.

It is well known that the new employee has an extraordinarily high accident rate. We have in a measure reduced the accidents among our new employees by giving them safety lectures, accompanied by lantern slides. All inexperienced men, whether apprentices or not, must first pass a probationary period in the instruction school, which is situated on the top floor of the building. These young men are shown how to avoid accidents, and the older ones why they should avoid accidents. These men are taught the rudiments of machine shop work, and they are not released until the "rough edges" have worn off, or not until they have adjusted themselves to their new environment. Safety lectures, accompanied by lantern slides, moving pictures, and pictorial bulletins, are quick to attract the eye. The most valuable ones are those issued by the National Safety Council.

Relation of Venereal Question

We were of the opinion that the venereal question entered into the accident problem, and we therefore gave a series of lectures of fifteen minutes duration, during the lunch hour period. We felt that we were better qualified to deliver these lectures to the men than to have some agency outside of the factory do it, as we were directly in touch with the local conditions in the plant, and had a thorough understanding of it. The delivery of a lecture of this character should not, if the hospital is functioning properly, reveal anything regarding venereal trouble not already known to that department. The practical purpose of the lecture was to teach the men that gonorrhea remained gonorrhea, and that chancroid is always a chancroid, and a syphilitic sore is the initial lesion of a constitutional blood disease. The commonly accepted lay idea that gonorrhea may ultimately develop into syphilis, and that chancroid (soft sore) is sometimes the cause of syphilis, is the main thing that an educational campaign clears up in the minds of the audience. We also spoke of the danger of contaminating the cutting oil, and how it would be possible to transfer the infection through this medium.

It is to be assumed that if the hospital department has anything to do with the sanitary and illuminating factors, they will be properly cared for.

In considering the ventilating problem in its relation to accidents, it is important that the hospital director have a comprehensive knowledge of the composition of pure air, the physiological importance of air, and the methods employed to remove impurities. Dust determination, and air conditioning of a machine tool plant are factors that make a long story and would be inappropriate in this contribution.

In conclusion, I wish to say that while we have expended considerable time on the subject of accident prevention in the LeBlond factory, the results accomplished justify its continuance. Our records show that our absenteeism due to injuries in the plant is approximately seven and seven-tenths minutes per year per person, and we believe this can be reduced 50 per cent.

HEALTH AND IMMUNITY

A. M. ROVIN, Ph.D., Detroit, Mich.

There is much said and written in the lay press about the importance of correct living as a means of maintaining good health and this thought is often carried to a point where one is led to believe that enjoying good health is equivalent to being immune to contagious and infectious diseases. Many people have an idea that a "healthy" person can withstand infections and that not withstanding them is evidence of some inherent weakness existing in the individual which places him below a proper health standard. Such a requirement would place practically every human being below a normal health standard because none of us is in a position to withstand all the various infecting organisms known to cause disease in man. The vast difference between being healthy and being immune to infecting organisms has long been recognized by bacteriologists. Every day experience gives us numerous examples. In a family of children exposed to scarlet fever the most robust may have a severe attack and die while a less healthy member of the family may escape the disease entirely. Typhoid fever does not usually occur in the weakest member of a family, and pneumonia often occurs in people enjoying perfect health prior to the attack. Measles and mumps are known to run a more severe course in adults than in children not because adults are less healthy but because they have less resistance to the germs causing these diseases. So in considering health conditions the problem of immunity and avoiding disease producing germs should be conconstantly kept in mind. Isolation and disinfection will accomplish much in limiting and possibly eventually eliminating contagious diseases; but in diseases caused by the pus organisms, immunization, from the universal prevalence of these germs, must constitute the most important factor in controlling diseases. By immunizing against colds many cases of broncho-pneumonia, pneumonia and pulmonary tuberculosis will be avoided. The ravages of infected wounds and puerperal sepsis may also be avoided by early immunization against the pus organism causing these infections.

Correct habits of life are important factors in maintaining health, but where possible disease germs should be avoided and where infections existing or are liable to occur, immunization should be practiced.

Reports Used in Social Service

In hospital social service work, such a large volume of material is usually collected that the reports are clumsy and difficult to use. The Chicago State Hospital has found it very satisfactory to have a summary of the investigation made and given to the medical division, the social service department keeping a duplicate copy on file. The physician, then, instead of having to wade through pages of material, has a brief report before him, which contains all the necessary information.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.
Director, Boston Dispensary, 25 Bennet St., Boston

RELATION OF THE DISPENSARY TO THE HOSPITAL*

BY RALPH B. SEEM, M.D., DIRECTOR, ALBERT MERRITT BILLINGS HOSPITAL, CHICAGO, ILL.

IN A consideration of the relation between the dispensary and the hospital, the many possibilities of such a relationship which may be mutually advantageous immediately present themselves. This is particularly true when the dispensary is the out-patient department of the hospital and is housed in a building on the hospital grounds. Experience has shown that dispensary clinics have certain weaknesses when standing alone, when they do not have hospital support and hospital facilities. With the proper association between them it is possible for each institution to do better and more complete work.

Many patients require treatment as ambulatory and as bed cases, the one period supplementing the other. As for example patients suffering with chronic diseases of the heart, kidneys, lungs, disorders of metabolism, arthritis and many other conditions that are subject to acute exacerbations, need hospital care from time to time. There are a large number of patients for whom the dispensary examination indicates hospital treatment. This is particularly true of patients examined in the surgical, gynecological, nose and throat, obstetrical departments, and many others. Hospital beds are essential for the service of an obstetrical dispensary which cares for patients in their homes, patients for whom, one must be prepared to meet the development of complications and conditions which can only be properly treated in a hospital. In a pediatric dispensary many patients are treated who should be admitted to the hospital in order to tide them over critical periods in the course of their treatment.

Patients discharged from the hospital, who require further observation of their response to hospital treatment, continued supervision and treatment, or dressings in a surgical case, can best be cared for in the dispensary, further observation of their response to hospital treatment, rather than having them go to the operating rooms or to the hospitals. They may return at times when it will be possible for the house doctor to see them, should that be desirable. This arrangement permits of a more intelligent after care and a better supervision of convalescence for certain types of cases. As patients pass from one department to the other it is important that the continuity of their treatment should not be interrupted.

A maternity ward with the necessity of pre-natal work and post-partum visits is handicapped without the facilities of an out-patient clinic. In a certain maternity clinic, which is a department of a large hospital, it is customary before discharge for the mothers who live within a certain district surrounding the hospital to take their babies to the pediatric dispensary. Here the child is registered and a personal relationship is established with the mother. She is told to return with her baby at intervals for observation, or at any time, if the baby does not do well or should she desire advice concerning the health of the child. In time this institution will have available for study, valuable records of children from birth to adolescence.

Many patients apply to the hospital for admission who do not need hospital care and should be treated as ambulatory cases in the dispensary. To determine into which class patients fall often requires careful study and pains-taking examinations by one or more specialists. These can be better carried out in the dispensary than by the examining physician of a large hospital who may not have the time or the training and experience to go into the case as thoroughly as may be necessary in order to arrive at a proper decision. In hospitals where the admitting system provides for the examination of these patients by members of the house staff, there is necessarily interference with their routine hospital duties, some of which may be impossible to interrupt, with the result that the patients are often kept waiting for examination, what must seem to them an unreasonably long time. As most hospitals have more requests for admission than they have beds available it is important that they should not be occupied by patients who might be going to a dispensary for treatment or for study and observation. If the admitting officer of the hospital will exercise care in sending to the dispensary for examination, and possible treatment, all patients for whom it will not be a hardship to wait until the next dispensary hour, fewer patients will be unnecessarily admitted to the hospital wards and the time of the house staff will be conserved; also the duration of stay in the hospital will be reduced for a certain number of patients, because many of the tests and special examinations indicated for a given case can be made in the dispensary. This method has been in use for a number of years at the Johns Hopkins Hospital. During the year 1919, 3,473 patients were admitted to the hospital on recommendation of the dispensary.

Ward patients may be sent to the dispensary for examination by specialists and even for special treatment. In this way it is often possible to secure the opinion of the specialist in a shorter time than when it is necessary to wait for him to come to the ward. The examination

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

can be conducted more conveniently in the dispensary department, which is especially equipped for it, and the necessity of preparing for the examination in the ward will be saved. The coordinate use of the dispensary departments by the hospital staff will have a tendency to maintain on a high level the standards of work of the dispensary which should have the same medical standards and ideals as the hospital.

Duplication of Service and Equipment Avoided

When the dispensary and hospital are located in the same physical plant, the duplication of special apparatus, equipment, and service can be saved as there are certain facilities which may be used in common. While it is desirable that there should be laboratories in the dispensary departments for the simple routine examinations, the more pains-taking tests and finer analyses should be made in the hospital laboratories. The services of technicians, and the reagents and supplies for the dispensary and hospital laboratories may be furnished from a common source. If properly located, one drug department will suffice for both. The same will be true of the mechanotherapeutic and hydrotherapeutic departments and röntgenology.

The training school of the hospital should supply the nurses for the dispensary. If the head nurse of the dispensary is a member of the staff of the superintendent of nurses, the training of the nurses while in the dispensary may be carried on without interruption. With a definite plan of supervised instruction while working in the different clinics, the pupil nurses should have a better appreciation of the health and social problems of the community because of their dispensary experience.

One social service department should serve both hospital and dispensary. That part of the work of this department which has to deal with patients who require hospital care is greatly facilitated when it is possible to follow these cases through the hospital without the necessity of transferring these patients to other agencies.

Dispensary Staff Has Other than Monetary Remunerations

It will be found advantageous to have members of the resident hospital staff regularly assigned for work in the dispensary, for which they will be held responsible. They will not only be of assistance in carrying on the work but as much as anything else will help to cement the tie between the work of the wards and the dispensary.

It is well recognized that it is impractical, because of the expense, to offer adequate monetary remuneration to the dispensary staff for their services, for which other means of compensation must be sought. As a hospital department, a dispensary offers greater opportunities in professional recognition and advancement. There is an added prestige in the appointment on its staff; and the associations are generally of greater value. Opportunities afforded members of the staff to make themselves expert in the diagnosis and treatment of certain types of diseases in which they are interested, may lead to their being called in consultation for cases of this kind admitted to the hospital, if not to treat them. Some institutions provide for the promotion of members of the dispensary staff, for meritorious work, to the hospital staff.

Interest in the work is also greatly increased with the opportunity of following patients into the wards, of observing their response to hospital treatment, of seeing the dispensary diagnosis confirmed or refuted, it may be by operation or at the autopsy table. The value and interest of the dispensary service is further enhanced for the dispensary staff, if it is possible to send into an observation ward for a limited period, a dispensary patient on whom it is desirable to secure continuous observation for twenty-four hours or to watch the response of the patient to a certain test or a given treatment, or to recover from the effects of a minor surgical operation. If this arrangement is possible without the necessity of having these patients admitted as cases of the hospital staff and thereby passing out of the jurisdiction of the dispensary staff, it is an especially valuable one.

A proper system of records is essential. The dispensary history should be sent to the ward and at least a resumé of the hospital findings, diagnosis, treatment, and results should be prepared by the resident staff to be recorded in the dispensary history. The records of the hospital and dispensary should be under the supervision of the same history clerk.

The question of organization is a very important consideration. The dispensary should be under the same administrative control and its medical policies should be determined by the medical board of the hospital. The chiefs of the various hospital services should be in charge of the corresponding departments in the dispensary, where they may be represented by their associates and assistants as physicians and surgeons in charge of the departments. That the desires and opinions of those actually doing the work, I refer to the dispensary staff, may receive proper consideration, they should select from among their members, representatives who would constitute an advisory committee, through which recommendations concerning the welfare of the dispensary should be presented to the medical board of the hospital.

To secure the advantages and benefits from the correlation of the work of the hospital and dispensary suggested in this paper, some of the results will depend upon the arrangement of the building in which the dispensary is located and its relation to the rest of the hospital, more, however, upon the organization, and most of all upon the desire of each person concerned to do his or her part toward that which is considered best for the patient, and a readiness to give as well as to take, in other words an *esprit de corps.*

BOOKS FOR TUBERCULOSIS HOSPITALS

The American Library Association, through its library war service, is doing some interesting work at the various Public Health Service hospitals. For instance, in the Public Health Service Hospital at Greenville, S. C., the library sends books for the use of the patients, and they are trundled around the wards on a cart or truck, so that the patient may choose the book in which he is most interested. Most of the patients in this hospital are suffering from tuberculosis, the majority are young soldiers, sailors, and marines who served in the war, but there are also a few old seamen. All tastes and temperaments are represented. Some of the men are looking forward to an out-of-door life, and want books on farming, etc.; others, who cannot return to their old trades, want vocational books giving some definite information about some new work. Some of the old seamen prefer Dickens or Thackeray, or perhaps books of history. The progress of the book-cart through the wards is always hailed with enthusiasm.

Many public libraries are unwilling to lend their books to patients in the tuberculosis hospitals, either government or private, and the American Library Association is trying to remedy this by sending books from its tuberculosis hospital library to War Risk cases in other institutions.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
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IT PAYS TO "FOLLOW UP"

Many a clinic chief receives a severe shock when told that an analysis of his clinic records would show an average of only two visits for salvarsan, per patient. But upon carefully going over his records he almost invariably finds the statement to be true.

In 1914 an analysis of the records of one of the best clinics in New York City showed that 29 per cent of the patients had failed to reappear after one treatment; 58 per cent after five treatments; and 71 per cent after ten treatments.

At that time social service "follow-up" was in its infancy; but soon after, methods for retaining patients for periods of efficient treatment began to improve, until, by 1916 marked progress was being recorded.

A clinic that had initiated a system of "follow-up" for venereal patients showed a loss in the year 1916 of only 11 per cent after one treatment, 40 per cent after five treatments, and 57 per cent after ten treatments. This was real progress, measured by pre-war standards.

The war has materially changed the attitude of the government and the public toward venereal disease, and with the change, the standards of four years ago have been revised. A study of the records of 162 cases of syphilis admitted to a clinic in New York City between July 1, 1919, and June 30, 1920, gives the following analysis: of these 162 patients, sixty-seven, or approximately 41 per cent attended the clinic for their last scheduled visit in June, or reappeared during the following six weeks. This, of course, includes those who were admitted toward the end of the year, and does not give a fair idea of the rapidity with which they disappear from observation. Of the ninety-five who dropped treatment, there were ten transferred to other clinics or private physicians, eleven transferred to another department of the dispensary or admitted to the hospital, four who left the city, and three advised to discontinue treatment, making a total of twenty-eight. Of the other sixty-seven who dropped treatment for inadequate reasons, some were of the irresponsible type who could not be persuaded to return, in spite of frequent "follow-ups," some could not afford the time necessary for treatment, some became discouraged because their symptoms did not improve, and a number dropped treatment as soon as the symptoms, of which they complained upon admission, cleared up. Another small group disappeared after having had salvarsan reaction or a mercurial stomatitis. For the majority, however, it was impossible to assign the cause of their delinquency. Upon tabulating the number of weeks each patient attended, the following figures were obtained: one visit, 100 per cent; one week, 90 per cent; one to two weeks, 86 per cent; two to three weeks, 84 per cent; three to four weeks, 83 per cent; four to five weeks, 75 per cent; five to six weeks, 72 per cent; six to seven weeks, 67 per cent; seven to eight weeks, 64 per cent; two to three months, 63 per cent; three to four months, 48 per cent; four to five months, 40 per cent; five to six months, 31 per cent.

In these figures, since one treatment, per patient, per week, was the usual procedure, the number of weeks corresponds approximately to the number of treatments given. It will be noted that the percentage of patients retained after twelve treatments is in excess of the percentage lost after ten treatments, in the highest efficiency figures for 1916, and that 31 per cent of the patients remained for twenty-four treatments. By an "efficiency comparison," it is obvious that results, in the light of these figures, have been more than doubled since 1914, a period of only six years. Whereas only 29 per cent of the patients were retained for ten treatments in 1914, 31 per cent have been retained for twenty-four treatments in 1920.

In consideration of the fact that most of these patients should be under continual observation for at least three years, these figures, on first thought, are not very encouraging. Patients are, however, held fairly well for a period of time sufficient to get one course of salvarsan, under the usual present day method of systematic treatment. They do fall rapidly by the wayside. But upon consideration of the progress shown in New York City since 1914, we believe there is good reason for encouragement.

INSTITUTE HOLDS SUCCESSFUL SESSIONS

During the ten days of the Institute on Venereal Disease, which was held in Washington, under the auspices of the United States Public Health Service, November 22 to December 4, four full courses and eleven half courses were given. Of the full courses, the first three consisted of lectures on the diagnosis and treatment of venereal disease, and the fourth, of lectures on delinquent women and their relation to the law. The half courses were on various subjects concerning the protective work among girls, public hygiene, etc., and two of which were especially interesting from an institutional standpoint, on clinic social work and clinic management. The first course dealt with such problems as the function of the nurse in social work of this kind, in the dealings with the family, in the diagnosis of syphilis and gonorrhea in the home, etc. The lectures were given by Dr. Rachelle Yarros, Dr. Edward L. Keyes, Dr. Valeria H. Parker, and Miss Henrietta Additon. The course on clinic management dealt with the problems of quarters and equipment, personnel and functions, methods, records, and the essentials of a successful clinic. The lectures were given by Dr. Alec N. Thomson and Dr. H. G. Irvine.

SINCE it is an established fact that oral filth and infections of the peridental structures hold a causal relation to many systemic diseases, it follows that the physician often finds it necessary to *insist* that the teeth be kept clean.

On these occasions, Colgate's Ribbon Dental Cream doubtless comes to his mind because of its intrinsic merit as a dental detergent. He may also find satisfaction in specifying Colgate's, because it stands in such sharp contrast to the mass of tooth pastes for which wholly unwarranted remedial claims are made.

MEETINGS, CONVENTIONS AND CONFERENCES

MISSISSIPPI VALLEY CONFERENCE PASSES IMPORTANT RESOLUTIONS

THE Mississippi Valley Conference on Tuberculosis, which met at Duluth, Minnesota, on September 2, 3, and 4, passed several important resolutions. It was decided that there is a direct connection between the present disturbed condition in industry and the possible increase in the tuberculosis death rate. This is because industrial disturbances, strikes, and lockouts invariably mean reduced production of manufactured articles demanded daily in American homes. Following a shut-down in any industry, both employers and employees endeavor to make up, at least in part, the loss which such shut-downs entail in wages and output. This increased burden tends to break down the health of the workers both in office and shop. Therefore, since the lives, the welfare, and the happiness of a countless number of citizens are so closely bound up with the whole question of industrial relations, the Conference urges that all employers of labor, and labor leaders do everything possible to eliminate the industrial tie-ups growing out of labor disputes, and to promote a more human relationship between employers and employees.

Hoarding food for the purpose of forcing prices higher is a crime. It is nothing less that profiteering in human life, for failure to obtain a sufficient quantity of nourishing food, owing to high prices created by hoarding, is lowering the vitality of thousands of people to a point where they fall easy victims to tuberculosis. The Conference therefore urges the punishment of all hoarders of food products, and favors legislation to prevent further profiteering in the necessities of life.

Because in past years nurses' training schools have given little training in tuberculosis, and because it is the greatest preventable disease problem of today, the Conference suggests that all training schools provide for student nurses' spending a number of weeks in a well conducted tuberculosis sanatorium, or, if that is impossible, that a special course in tuberculosis be given.

There is no class of invalids more numerous or more neglected than those suffering from tuberculosis. Many physicians pay too little attention to the diagnosis of this disease. Or they may depend upon methods which are not sufficiently accurate for making an early diagnosis, which is especially important in this disease, as tuberculosis is curable with any reasonable degree of certainty only in its early stages. For this reason, the Conference requests all medical colleges to give a more conspicuous place in their curriculum to intensive training in diagnostic methods. It also recommends the establishment of clinics for the instruction of physicians now in practice, and to this end urges the colleges and clinics to avail themselves of the facilities which are afforded by the numerous sanatoriums now in existence, or which are rapidly being constructed.

NATIONAL SOCIETY FOR THE PROMOTION OF OCCUPATIONAL THERAPY HOLDS FOURTH ANNUAL MEETING

By WILLIAM RUSH DUNTON, JR., M.D., Chairman of Committee on Publicity and Publications, National Society for the Promotion of Occupational Therapy; Assistant Physician, Sheppard and Enoch Pratt Hospital, Towson, Md.

The fourth annual conference of the National Society for the Promotion of Occupational Therapy was held in Philadelphia, September 13 and 14, 1920. The Rittenhouse Hotel was the headquarters of the society, where all but one of the meetings were held. There was a splendid exhibition of handicraft work done in the occupational therapy departments of a number of hospitals. Among those represented were Allentown State Hospital, Bloomingdale Hospital, Montefiore Home, Walter Reed Hospital, and a number of hospitals in the Public Health Service. The character of the work was excellent and showed that there is a steady improvement in standards. The exhibit received a great deal of favorable comment from the visitors. The attendance at the conference was large, over 230 names being registered. It is interesting to note that the youngest visitor was eighteen and the oldest eighty-three years old. An international touch was given by the presence of two physicians from Czecho-Slovakia who are studying medical conditions in this country, Dr. Hynek J. Pelc and Dr. Juroslav Hulka.

The first session was given over to the business meeting, at which officers' and committees' reports were read, and the election of officers held. The officers for the ensuing year are: president, Dr. Herbert J. Hall; vice-president, Dr. C. Floyd Haviland; secretary, Mr. Louis J. Haas; treasurer, Miss Marion R. Taber; member of the board of management (to serve five years), Mrs. Carl Henry Davis; chairman of finance committee, Miss Marion R. Taber; chairman of committee on research and efficiency, Mr. Thomas B. Kidner; chairman of committee on installations and advice, Mrs. Eleanor Clarke Slagle; chairman of committee on publicity and publications, Dr. W. R. Dunton, Jr.; chairman of committee on admissions and positions, Miss Susan C. Johnson; chairman of committee on teaching methods, Miss Elsey R. Taft.

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HEADQUARTERS

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ELIXIR ENZYMES is a palatable preparation of the proteolytic and curdling ferments that act in acid medium. It is recommended as an aid to digestion and as a gastric tonic generally.

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Elixir of Enzymes is an excellent adjuvant and vehicle for exhibiting iodids, bromids, salicylates and other drugs that disturb the digestive functions. One dram of Elixir Enzymes will carry 46 grains of potassium iodid or 45 grains of sodium salicylate or 17 grains of potassium bromid.

Elixir of Enzymes contains the curdling ferment and may be used for making junket or curds and whey. Add one teaspoonful of the Elixir to half pint of lukewarm milk, stir thoroughly and let stand till cool.

For minimizing the organic disturbances and eliminating the corrosive effect of potassium iodid on the mucous membrane of the stomach as well as disguising the taste, the following combination is recommended:

Potassium Iodid, 2 ounces.

Distilled water, enough to make two fluid ounces.

To exhibit, for instance, 20 grains of potassium iodid three times daily, use one teaspoonful of Elixir of Enzymes, one teaspoonful of the above solution to half pint of lukewarm milk; stir thoroughly and let stand until cool. Take one-third of this quantity as a dose. This junket should be made up fresh every morning.

Pituitary Liquid ½ c. c. and 1 c. c. ampoules, 6 in box.

Pituitary powder and tablets. Anterior Pituitary Powder and Tabs. Posterior Pituitary Powder and Tabs.

Corpus Luteum (true) powder and 2 and 5 grain Tabs, and 2 and 5 grain capsules.

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At the afternoon session, proceedings were formally opened by an invocation delivered by the Rev. Robert Norwood. In the absence of Commissioner of Health Martin, Dr. Woodward made the address of welcome, to which response was made by Mrs. Slagle, the president. Dr. Samuel W. Hamilton then spoke on The Importance of Occupational Therapy; Dr. Frederick Brush upon Heart Disease and Work, and Dr. Earl D. Bond upon Occupational Worker and the Trained Nurse. Following this, there was a delightful musicale furnished by Sascha Jacobinoff, violinist; William G. Thunder, accompanist; and two talented young ladies who played upon the harp and cello.

The evening session opened with an address by Dr. Herbert J. Hall upon The Occupational Aide of the Future, after which addresses were made by Colonel Robert E. Maddox upon Occupational Therapy in Public Health Service; Mrs. Clyde M. Myers upon Vocational Training of Tuberculous Patients; Dr. Horatio M. Pollock upon Records and Statistics in Occupational Therapy; Miss Beatrice Lindburg upon Work with Tuberculous Patients; and Dr. S. E. Devlin upon Occupational Therapy in Relation to Patient and State.

The first part of Tuesday morning was given over to several round tables, all of which were well attended and apparently enthusiastically carried on. At 11 a. m. the chairmen of these round tables made a report before the whole society, so that all were able to share in the conclusions reached.

The afternoon session was held in the assembly room of the New Jerusalem Church opposite the hotel. Miss Frances E. Wood read a paper on the Medical Work Shop, after which, under the chairmanship of Miss Susan C. Johnson, a number of reports and short papers upon the Training of Teachers were read. Miss Mary E. Lowney also spoke upon Progressive Rehabilitation of the Handicapped.

In the evening a banquet was held at which there were a number of speakers, and the leadership of the society was formally handed over to Dr. Hall.

On Monday a luncheon was given for the society by the Philadelphia School of Occupational Therapy, at their building, 2131 Spruce Street. On Tuesday afternoon the director of the Department of Public Health, Dr. C. Lincoln Furbush, and Mrs. Furbush gave a reception at their home, 4300 Locust Street.

CONNECTICUT HOSPITAL ASSOCIATION HOLDS EXECUTIVE SESSION

An executive meeting of the Connecticut Hospital Association was held November 18, to consider changes in the constitution and by-laws, and to get reports from the different committees. One of the main objects of the meeting was to ascertain as far as possible the need in this state of a home for chronic and incurable cases, in order to release as many as possible of the beds in the general hospitals that are now occupied by this type of case. Another object was to get a report from the committee appointed to adjust with the various insurance companies the rates for the care of compensation cases. The bill providing for the care of chronic and incurable cases will be presented to the General Assembly in January, sponsored and strongly endorsed by the Association.

The better connoisseur of blood pictures the internist is, the better understanding of his patient's condition and the more intelligent and worth-while prognosis he can make.

DISPENSARY SERVICE BUREAU

The American Hospital Association has just issued the following folder, describing its service bureau on dispensaries, under the title, "How Meet the Cost of Dispensary Service? How Make the Service Worth the Cost?"

Dispensary Housekeeping

The high cost of living has hit dispensaries as it has everything else. What can be done to meet the higher costs without diminishing service? Every hospital that has an out-patient department and every dispensary run independently of a hospital, have to face this question and ought to answer it.

This Service Bureau of the American Hospital Association aims to help find a practical answer.

Making ends meet has two sides: (1) the side of finance, getting enough income to balance expenses; (2) the side of service, rendering enough dispensary service to meet the needs of the community or that part of the community which the particular institution purposes to serve.

Some of the practical questions follow.

Do These Questions Interest You?

1. How much income do you derive from the operation of your dispensary from admission fees, fees from medicine, etc.? What proportion are these fees of your total expenses? Do you know that many well-established dispensaries are securing from 30 per cent to 50 per cent of their entire expenses from their patients without curtailing service to those who cannot pay even nominal fees?
2. How much time of your doctors in the dispensary is spent on non-medical work, clerical or policing? Do you know what other dispensaries have done to enable the doctors to devote their time to the actual medical work, that only doctors can do, and how the expenses of this assistance have been met?
3. How best relate dispensary medical staff and hospital staff so that the hospital will stimulate the medical work of the dispensary and the dispensary make the hospital more efficient by aiding in the admission and aftercare of patients?
4. Do you know how many patients, with probably serious diseases, make only one visit and never come back?
5. How nearly is your dispensary meeting such community needs, as cooperation with the charities of the city, with the medical school inspection, with the department of health?

Some of these questions can be answered by the experience of other dispensaries. Some require local study in your dispensary or in your community. Studies which yield facts are often the means of securing both more money and better service.

Can the Service Bureau help you?

This Bureau is available to all interested in its field. To all members of the American Hospital Association, ordinary service rendered by correspondence is without charge. Where local surveys or investigations by the staff of the Bureau are necessary, the bare cost will be charged to institutional members, the Association meeting the overhead expense. An additional charge, ordinarily about 10 per cent, will be made to others than institutional members to cover overhead.

Individuals or organizations not members of the American Hospital Association may also secure the service of the Bureau. Correspondence from any such inquirers will be gladly answered. Special advice or services will be charged by the Association to non-members at reasonable rates.

Address the Service Bureau at the office of the American Hospital Association, 22 East Ontario Street, Chicago, Ill.; or the chief of the Bureau may be addressed directly if desired: Michael M. Davis, Jr., 15 West Forty-third Street, New York City.

Even Worse Than We Thought

The following was found on a dermatology examination paper in one of our training schools:

"What are the symptoms of hereditary syphilis in a new-born baby?"

"Hutchinson's teeth and a rash that doesn't itch."

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The most celebrated of all the baking powders in the world—celebrated for its great leavening strength and purity.

It makes cakes, biscuit, bread, etc., wholesome, and insures against harmful ingredients and all forms of adulteration that go with inferior brands.

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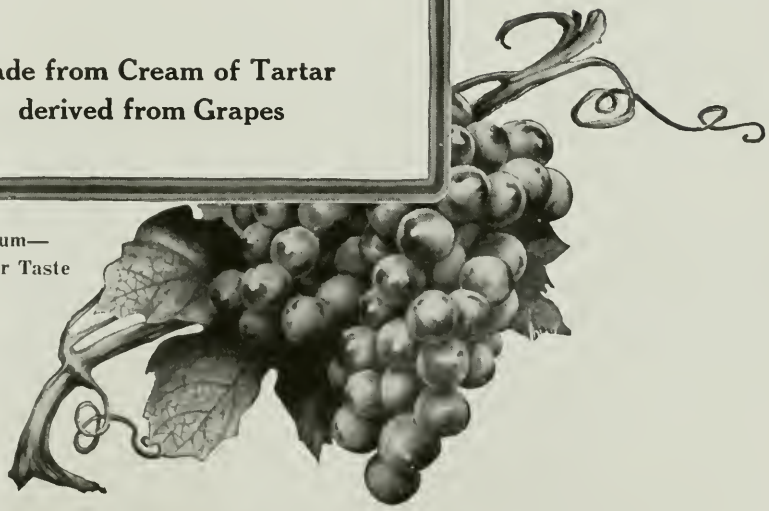

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Hints to Hospital Superintendents

SECURING TAX-FREE ALCOHOL

It has been found that less than 25 per cent of the hospitals are availing themselves of the privilege of purchasing tax-free alcohol. The United States Industrial Alcohol Company, at a great expense, through its representatives in Washington, secured a modification of the ruling on alcohol, so that it could be obtained for hospital use tax-free. Inasmuch as $200 or more may be saved by a hospital on every barrel of alcohol used, superintendents should acquaint themselves with the procedure. An editorial in the November issue of THE MODERN HOSPITAL gives the necessary information. The new method which has been adopted is much simpler than the old one. Under the old procedure superintendents often had to order alcohol three or four months in advance, to be sure of having it on time, the new scheme does away with this necessity, and also assures full proof alcohol, in that it has not been set aside for some time, as formerly.

ROOMS ENDOWED BY NURSES

In the Presbyterian Hospital of the city of Chicago there are two private rooms endowed by graduate nurses, one by the Alumnæ Association of the Illinois Training School, and the other by the alumnæ of the hospital training school. Each association pays $10,000, the interest on which is used for the upkeep of the rooms. Aside from the fact of having such rooms in the hospital, this is also a fine thing because it keeps the nurses in touch with the hospital after they have finished their training. They feel that the hospital where they have helped to endow a room is their home when sick, and they are likely to praise the institution, which many times brings new applicants to its training school. It would be a good thing for a hospital to encourage this practice as much as possible.

PLACE TO GIVE ANESTHETICS

It is very necessary that hospitals should realize the importance of the psychic factor in anesthetics. The surroundings just before the anesthetic is administered will probably have a decided effect on the patient's mind, and may easily affect the recovery. A story is told of the experience of a woman who, being forced to wait an hour and a half after she was brought from her room before the administering of the anesthetic, thought from the sights and sounds around her that she was in the "chamber of horrors." The experience had a very lasting effect upon her mind. A possible solution would be to have the anesthetic given in the patient's room, after which the removal could be made, but if this is undesirable from a surgical standpoint, some better provision should be made than we find at present in many hospitals, to minimize the terrors of unpleasant surroundings.

TANKS AND FITTINGS IN FIRE EXTINGUISHING APPLIANCES

In winter particular care must be taken of the tanks and fittings in fire extinguishing appliances. They should be examined, whether they are for steam heating, general water service, or fire protection, to see that none is frozen or has been frozen, and that they are in operative condition; and where there is any danger of freezing, the necessary protection should be provided. It is important to see that the tank heaters are of adequate capacity for the tanks they serve. Both heaters and circulating pipes should be cleaned of any rust or sediment; tanks also should be cleaned. Any pipe lines which may be in an exposed location, either between the ground and first floor, between buildings, or near windows, etc., should have suitable boxing around them to keep them free from frost. Open joints or gaps in the boxing are a prolific source of trouble; it is essential that all such defects be discovered and remedied at once.

CLASSES FOR "UNTIDY" PATIENTS

In every state hospital the "untidy" patients, or those who have degenerated into such a state that the commonest demands of sanitation are lost upon them, are a source of trouble and anxiety to everyone. Little attempt had been made to improve this condition, which was considered inevitable, until the Department of Public Welfare of the State of Illinois, as a part of the occupational therapy it has been starting in its various state hospitals, established some habit training classes, to start at the very beginning. The most hopeless patients were selected for the trial. Sufficient time has elapsed to show results, which have been very encouraging. Dr. R. T. Hinton, of the Elgin State Hospital, reports that of a class of fifty-five patients who in May, 1920, were not allowed to go to the general dining hall for their meals, twelve were sent in July, thirty-five in August, while now all the class is allowed to go, and the special dining room has been closed.

ESTABLISHING OUT-CLINICS

When patients are granted parole from an institution they are required to report back, usually, every two weeks. It is impossible for some of them to do so, on account of the distance from their homes to the hospital. It is a very good plan for the social service department to establish out-clinics in the district by obtaining the cooperation of local organizations in the matter. These out-clinics greatly simplify the patient's problem of keeping in touch with the hospital.

Every child has the right to be well born.—John Ruskin.

Gallon Package

There seems to be no diet requirement so delicate that dainty, tempting Jell-O may not be served.

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LETTERS TO THE EDITOR

FOOD FOR THOUGHT

To the Editor of THE MODERN HOSPITAL:

Why take music into hospital wards? My answer would be because music has proved a great healing force from a psychological and physiological point of view. This being true, can it be more needed any place than in hospitals, where discouragement reaches its highest point and ambition its lowest ebb?

It is a matter of record that Florence Nightingale, during the Crimean War, realizing the practical benefit to be derived from music, made an effort to have it brought to the bedside of wounded soldiers; and Sir Richard Quain, an eminent surgeon, heartily approved of the plan. Unfortunately nothing remains to show that the idea was carried out. However, Miss Nightingale, on her return to London, instituted corridor singing in the hospitals, which is still going on.

Some two decades have passed since I entered an American training school for nurses, bringing with me a great appreciation of music in its relation to humanity and having a vision of its immense value, if properly used, in functional disorders. During my first months of hospital life, I keenly felt the gloominess and depression, and all my time off duty was spent at concerts or any place where music was to be heard. My own longing for music led me to believe that the patients who suffered from the dejection and melancholia attendant upon illness might also be benefited by the healing power of music. We, therefore, brought music into the hospital, and very soon the realization of their feelings came to me. Some would long to hear a piece on the piano; others wished for string instruments—any kind from a banjo to a violin—and the wee tots when I tucked them in at night would wistfully say, "Sing something like mother does, so I go to sleep." The children from the slum districts would even ask for the "hand organ in our alley." One night an old Irish woman who suffered much from inflammatory rheumatism tossed and moaned. Though she had been given an opiate, nothing quieted her; so I began singing softly an old Irish song, and soon she slept. After that it was a nightly custom, and the day that gave me the proud title of head nurse also gave me courage to make a plea for ward music. Permission was finally granted. A sweet-voiced singer came into my ward, and all went splendidly, until suddenly from Biddy's corner, came a hysterical crying. Confusion reigned, and the ward was quickly sans singer, and sans permission for ward music. In taking Biddy to task for her unseemly spell and selfishness in depriving the other patients of their enjoyment, the only explanation obtainable was, "Shure, I liked the music, but I couldn't stand for the way she opened her mouth when she sung."

The bible gives the first account (I Samuel, Chapter XVI) of the therapeutic effect of music. It tells us that David played on his harp "until Saul was refreshed and well."

The one who gives music to the suffering must give with understanding and sympathy; he must not stand by in helpless sympathy but must know how to be tactfully, sympathetically helpful. Only brave, courageous artists are wanted in hospital wards where any emergency may at any time occur,—comely, talented, well-groomed performers, giving of their best in music, until the listeners can echo the words of Dr. John Armstrong in the "Art of Preserving Health"—"Music exalts each joy, allays each grief, expels disease, and softens every pain. Only in this way will suffering humanity be benefited by music from a mental, moral, physical and spiritual viewpoint."

ISA MAUD ILSEN.

THE PUBLIC SANATORIUM AS COMPARED WITH THE PRIVATE IN THE TREATMENT OF TUBERCULOSIS

To the Editor of THE MODERN HOSPITAL:

After an experience of twelve years in different institutions treating tuberculosis I have tried to formulate an opinion regarding the value of private sanatoriums as compared with public sanatoriums in the treatment of tuberculosis.

There should be a practical side to this question in view of the fact that so many localities are building public institutions. In some instances the authorities are apparently going to extremes in building these institutions as we know of instances where there is one employee to each patient and the per capita cost of maintenance has amounted to, in some cases, almost ten dollars a day.

As a rule the cost of construction in the public institutions is a great deal more for such patient or bed than that in the private institution. It has been my experience, also, that an indigent patient who is cared for by the state or county will complain when he is compelled to take treatment in a building similar to one where the private patient is glad to pay twenty-five or thirty dollars a week. Also the patient in a public institution expects a great deal more for nothing than does the private sanatorium patient for the stated amount of money. This is especially true of food and nursing.

The attitude of the patients toward the doctors in charge is a very important consideration. Many patients in public institutions seem to feel that the doctors are grafters and do not have interest in the work and they will, therefore, go to a private sanatorium on account of the reputation of the doctors in charge whose ability to treat tuberculosis is recognized. In other words the public patients feel that the doctors in public sanatoriums

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Economical

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are there to be worked. A comment dropped by one of my patients in conversation with another who complained that she had a pain in the chest—"Tell the doctor, that is what he is here for"—well illustrates the attitude of public patients toward the doctor.

In public institutions the salary paid to physicians is entirely inadequate and the doctor has many more patients to treat than does the doctor in the private sanatorium. Some tuberculosis sanatoriums are so large that the treatment is all routine and the patient is not considered individually.

A very important consideration in comparing the value of sanatoriums is the attitude of the public and of the board of managers. On the one hand, a superintendent in a public sanatorium must use his energy to secure the necessities for the patients, and, on the other hand, the board of managers are often reluctant to contribute the money for these necessities.

Politics has to be considered in the public institutions and on account of frequent changes in the administration much money is lost and many attempted improvements are stopped at a great loss in money and energy.

There are institutions semi-private similar to Gaylord Farm Sanatorium, Wallingford, Conn., where there are very fine results obtained. It would seem that such institutions run by anti-tuberculosis associations would be the ideal ones of the future. In this way there would need be no politics or public interference and the patients would appreciate what they were getting if they had to pay at least a little. For those patients in public institutions who are able to do a few hours work a day, an industrial colony is absolutely necessary.

HERBERT F. GAMMONS, M.D.
Superintendent, Woodlawn Sanatorium, Dallas, Texas.

ROCKEFELLER FOUNDATION TO ASSIST CENTRAL EUROPEAN MEDICAL SCHOOLS

To assist Medical Schools in Central Europe, the Rockefeller Foundation announces a cooperative program covering the following points.

1. Aid in the rehabilitation of scientific equipment for medical teaching and research.
2. Aid in furnishing medical journals to universities throughout Europe.
3. An invitation to the authorities of Belgrade University Medical School to study medical education in America and England, as guests of the Foundation.

Colonel F. F. Russell, who has been in Prague since August, serving as technical advisor in public health laboratory organization to the Czech Ministry of Hygiene, will arrange the details of the Foundation's cooperation with the medical schools.

These activities of the Rockefeller Foundation in Central Europe are the result of investigations made there recently by its representatives. The following extract from a report submitted to the Foundation by one of its officers, sent to Europe to make a special inquiry into their needs, gives some idea of conditions in Central Europe with respect to medical education:

Decisions of far-reaching significance in the matter of medical school support, the training of nurses, the care of the sick and the prevention of disease must be made in these countries within the next few years. Expert guidance and some assistance in starting sound programs now may mean much for generations to come.

Medical schools of high rank and long standing exist in the following cities of Central Europe: Vienna, Gratz, Budapest, Prague, Cracow. Other schools of importance are at Warsaw and Lemburg in Poland, at Innsburg in Austria, at Zagreb (or Agram) in the Croatian state of Jugo-Slavia.

This comparatively small number of medical schools serves a total population of approximately seventy-five million people. With the single exception of Austria, all of the countries of the region under consideration suffer from a great shortage of physicians.

There are reported to be less than three hundred doctors in all Serbia. Outside of the army medical forces, less than two thousand physicians are available to care for the twenty-five million inhabitants of Poland. Additional schools are needed adequately to serve these countries, particularly those of the south and east.

There is a five-year interruption of medical training in Europe which will affect the supply of physicians available during the coming generation. The instruction of adequate numbers of physicians for the years immediately ahead is essential.

In all of the universities of Central Europe the equipment (glassware, rubber, chemicals, and apparatus usually replenished year by year) has been very largely used up during the four years of the war, and the two years of disorganized conditions and low exchange which have followed the armistice.

The situation in Germany is somewhat different. That country is adequately supplied with medical schools, and much scientific apparatus is manufactured there.

The greatest desire for American and British Medical Journals was expressed at every university visited. The journals are supplied on an arrangement whereby the university concerned pays in its national currency at the pre-war rates of exchange, the Foundation making up the difference due to loss in exchange.

The secretary arranged personally for the supply of journals to the following universities—Vienna, Budapest, Zagreb, Prague, Cracow, Lemberg, Warsaw. It is proposed to extend the services to Gratz, Innsbruck and Bucharest, in Central Europe, and to some thirty of the principal centers in France, Belguim, Italy, and Germany.

With the idea that Belgrade is one of the strategic points in a world program in which a medical school must be established in the near future, it has been decided to invite a group of four of the men rseponsible for its development to make a visit to America for study and inspection.

It has also been decided that further assistance will be given, by lending a technical adviser in the organization of medical education, and that the Belgrade officials will be authorized to recommend to the Foundation from time to time, as candidates for fellowships in specialized post-graduate medical study, persons who may be under appointment or consideration for the faculty of the proposed school in Belgrade.

VACCINE FOR YELLOW FEVER DISCOVERED

The discovery by Dr. Hideyo Noguchi, at the Rockefeller Institute for Medical Research, of a vaccine for yellow fever, introduces a new factor in yellow fever control, through the possibility of making persons immune to yellow fever by vaccination.

Heretofore, work in yellow fever control has been entirely that of prevention of infection by controlling breeding places of the mosquito which carried the yellow fever germ. The isolation of the yellow fever organism, however, has made it possible for Dr. Noguchi to develop a serum, which it is believed will reduce the mortality from yellow fever, and a vaccine, which gives promise of protecting the non-immunes against their contracting the disease.

Already vaccination against yellow fever of people going to tropical countries is being made in New York. This work is being done at the Broad Street Hospital with vaccine furnished by the Rockefeller Institute.

The first shipment of vaccine for yellow fever from the Rockefeller Institute to tropical countries was made a year ago when three hundred bottles were sent to Mexico. Other shipments have been made since then, the latest on November 10. All vaccine supplied to Mexico is sent to the Mexican Department of Health which arranges for its distribution.

The Central American countries are so well convinced of the efficacy of Dr. Noguchi's vaccine that they are permitting travel without quarantine detention, of those who have been successfully vaccinated.

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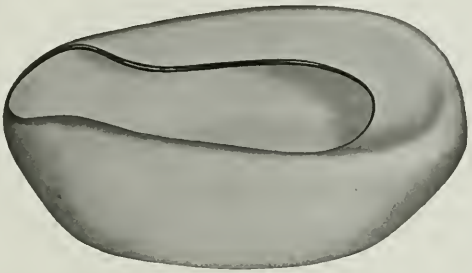

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Book Reviews and Current Hospital Literature

CLEVELAND HOSPITAL AND HEALTH SURVEY ISSUES POPULAR SUMMARY

THE Cleveland Hospital and Health Survey recently issued a popular summary of its exhaustive report, just off the press, the result of the work of a large staff of competent men and women, experts in their fields, who were appointed for this service by the Cleveland Hospital Council. The complete record separately bound by sections, may be obtained from the Cleveland Hospital Council, 308 Anisfield Building, Cleveland, O. Following is a list of the reports: Vol. I, Introduction, General Environment, Sanitation, by Dr. Haven Emerson; Vol. II, Public Health Service, Private Health Agencies, by Dr. Haven Emerson and Louis I. Dublin, Ph.D.; Vol. III, A Program for Child Health, by Dr. S. Josephine Baker; Vol. IV, Tuberculosis, by Dr. Donald B. Armstrong; Vol V, Venereal Disease, by Drs. William F. Snow and Alec Thomson; Vol. VI, Mental Diseases and Mental Deficiency, by Drs. Thomas W. Salmon and Jesse M. W. Scott; Vol. VII, Industrial Medical Service, Women and Industry, and Children and Industry, by Dr. Wade Wright, Mrs. Marie Wright, and Miss Florence V. Ball; Vol. VIII, Education and Practice in Medicine, Dentistry, and Pharmacy, by Dr. Haven Emerson; Vol. IX, Nursing, by Miss Josephine Goldmark, A.M.; Vol. X, Hospitals and Dispensaries, by Michael M. Davis, Jr., Ph.D., and Dr. W. L. Babcock; and Vol. XI, Method of Survey, Bibliography of Surveys, and Index, by Drs. Haven Emerson and Gertrude E. Sturges.

The Survey's abstract of the volume devoted to hospitals and dispensaries follows:

Cleveland hospitals care for 10 per cent of the 20,000 people who are ill at any one time. Hospitals furnish facilities unavailable otherwise, and through them doctors can render better service to a larger group than in any other way.

Cleveland falls far below other large cities, however, in the number of hospital beds for its population. On the basis of five beds for each thousand population, there should be 1,500 more. The use of the present beds, as well as the new ones, must be more widely varied. Now nearly half of them are devoted to surgical cases, only 115 to obstetrical cases, four to eye diseases, and none especially to ear, nose, or throat troubles. The City Hospital, which has 100 beds for contagious diseases, should have 400.

It has been found that the best system for conducting a hospital is through a board of trustees. This board should include representatives of all elements, not merely doctors and nurses, and not business men exclusively. They must select a superintendent who is in every way suited to the office and must then give her sufficient authority. The superintendent's lack of proper authority has been observed, as has also the fact that the nursing schools are being used as a means of obtaining cheap nursing labor. If this persists, the relation of such schools to the hospital must be as distinct as that of the medical schools at the present time.

Each hospital must have its regular staff of doctors. Only 29 per cent of Cleveland doctors are affiliated with any hospital. The foreign-born physicians have almost no representation, and the one negro doctor on the staff of Lakeside Hospital is the sole representative of his race on a Cleveland hospital staff.

Every hospital should have a complete system of accounting and bookkeeping, employing experts if necessary. There should be an investigator on the staff to ascertain the financial condition of patients. It would be possible for several hospitals to engage the same investigator.

The purchasing department of the Hospital Council is a distinct and notable achievement, characteristic of Cleveland. Through cooperative buying, the hospitals are able to take advantage of seasonable markets for canned goods and other provisions, and the purchasing of drugs and surgical supplies in large quantities naturally reduces the cost. It is surprising that some hospitals do not welcome the opportunity of using this department.

The problem of getting patients to hospitals is one that has received almost no attention in Cleveland. There are three agencies through which ambulance service may be obtained: the police patrol, the private undertaking establishments, and the City Hospital, which possesses one ambulance. While the police patrols are prompt, they carry no first aid kit, an inexcusable omission, and there is a natural aversion on the part of the citizens to riding in a police emergency ambulance. Nor do they relish being carried through the streets in the undertaker's "dead wagon." The City Hospital ambulance gives most unreliable service, even postponing a call two days. There is complaint, too, about the failure to fumigate the ambulance after use. Each large hospital needs its own ambulance, and the smaller ones could maintain such service by combining.

Eighty-seven and a half per cent of the patients who leave the hospital go home to unfavorable surroundings. It is the duty of the hospital to give instruction for home convalescence and to make definite suggestions for use of the dispensary. A city as large as Cleveland should have institutional accommodations for 12,000 convalescents during a year. Such a home should be in the country. The building need not be new or expensive, and the cost, which is only half that of hospital care, could be borne by charging $1.75 per day. At present the hospitals must take care of convalescents, as is proved by the fact that 12.5 per cent of the hospital cases observed had been in the institution over two months.

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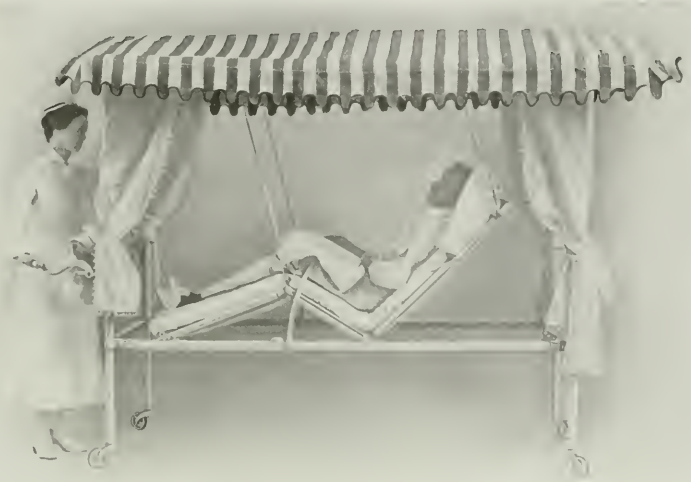

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Social service in hospitals and dispensaries of Cleveland has been only slightly developed. Those organizations that are in existence are too closely confined to hospital admission and dispensary records. It should not be the province of social service workers merely to be kind to the patients, that is the general duty of the hospital, nor should these workers have to spend their time admitting patients and learning their financial status, important as this work is. Their distinct duty is to be an adjunct to medical treatment, a link between the hospital and the home.

Foreigners are prone to think of hospitals as "places where you go to die." It devolves upon the hospital to quiet their fears, not only to make them understand but to render them understood. It is excellent practice to provide interpreters and foreign visitors who contribute valuable help.

Cleveland's lack of appreciation of dispensary service is indicated by the fact that there are only twelve calls at dispensaries per one hundred population here, while in New York, Boston, and Chicago there are eighty, fifty, and forty, respectively. Six hospitals conduct dispensaries and each of the seven health centers supports one.

It is evident that the hospitals and dispensaries of Cleveland were planted, not planned. Each has grown without any relation to the other. The time has come when a community plan should be realized, so that the present neglect of care of children, and of eye, ear, and nose diseases will be impossible.

Too much cannot be said of the good work done by the Cleveland Hospital Council. Organization is only machinery, however, to make the road smoother. Ultimate success depends upon the individual soul, civic pride, and spirit of cooperation, qualities which Cleveland has always manifested in a very large degree.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. Macleod, M.B., professor of physiology in the University of Toronto, Toronto, Can.; formerly professor of physiology in the Western Reserve University, Cleveland, O., and by others.[1]

This book, as its title indicates, correlates physiology and biochemistry with clinical medicine. It fulfills this function very well indeed. Since in so many diseased conditions the physiological activities of the body are perverted, it is of extreme importance nowadays that the underlying abnormal physiological and biochemical factors be well appreciated by clinicians. In order for these changed physiological conditions to be understood, one must first have knowledge of physiology of the normal. Great strides have been made in physiology in recent years, and in this book these advances in our knowledge are brought up to date. From this point of view this work can be considered a text in advanced physiology. Nevertheless, it should be easily comprehended by all medical readers.

The subject form is presented in a very clear, logical manner and the style is simple and very attractive. The book reads easily and even entertainingly. The table of contents is very thorough and comprehensive, supplementing the index, which is also very satisfactory. The author has had the wisdom to append to the end of each chapter a short but adequate bibliographic list, which adds so materially to the value of a textbook that it really should be required in all scientific texts. The chapters on shock and on metabolism, especially on carbohydrate metabolism and its relationship to diabetes, are especially to be commended.

This book should be valuable to every physician who wishes to make himself familiar with recent advances in physiology and biochemistry and who wishes to study and treat his patients in a proper and scientific manner.

A TEXTBOOK OF DERMATOLOGY. By J. Darier, physician to the Hospital Saint-Louis. Member of the Academy of Medicine, Paris, France; honorary member of the American Dermatological Association, etc. Authorized translation from the second French edition. Edited with notes by S. Pollitzer, New York, ex-president of the American Dermatological Association, corresponding member of the French Society of Dermatology and Syphilography, etc.[2]

As anticipated, Pollitzer's translation of Darier's book is a valuable addition to the textbooks on dermatology. The illustrations are excellent and numerous. The chapters on tuberculosis and syphilis are extraordinarily good, while the one on treatment is not excelled by that of any other publication. The book is particularly valuable to the junior and senior medical student. There seems, however, to be scant attention paid to the literature of dermatology from other countries. Reference to many splendid contributions from American and other dermatologists has been omitted. The book should be included in every modern medical library.

J. S. EISENSTAEDT.

THE PRINCIPLES OF ANTE-NATAL AND POST-NATAL CHILD PHYSIOLOGY, Pure and Applied. By W. M. Feldman, M.B., B.S., (Lond.)[3]

One seldom finds a book that contains as much information as the present volume. The author has gathered a wealth of knowledge which he embodies in a small volume of 694 pages. He presents the reader not only with a great deal of data on the subject of ante-natal and post-natal physiology, but he discusses at length many allied subjects, such as theories of heredity, mechanics of development, and physiology of fertilization, the whole theses displaying a great deal of erudition and profound scholarship.

If there is any criticism on this excellent volume it is in the direction of the mathematical insertions scattered throughout the book. In some places the author devoted the greater part of a chapter to the presentation of mathematical formulas that detract from the interest of the book. He erred in the same direction in a previous publication, "The Jewish Child," a most valuable contribution in every other respect.

As a whole, however, one may find in the "Principles of Ante-Natal and Post-Natal Physiology" a great deal of interesting information. The volume would make a valuable addition to the library of every physician and scientist.

Hospital Slogan

Perhaps all state hospital superintendents would find that it was helpful to formulate a slogan for their institutions. They might do worse, however, than adopt the one of the Chicago State Hospital, as stated by Dr. Charles F. Read, the managing officer. It is: "This hospital must be a good place for the patient and a good place for the employee." The hospital is maintained by the state of Illinois for the mentally sick, it is supported by the taxpayers of the state, it has nothing to sell, but it has one great thing to give, and that is *service*.

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1. C. V. Mosby Company, St. Louis, 1920.
2. Lea & Febiger, Philadelphia, 1920.
3. Longmans Green & Co., New York, 1920.

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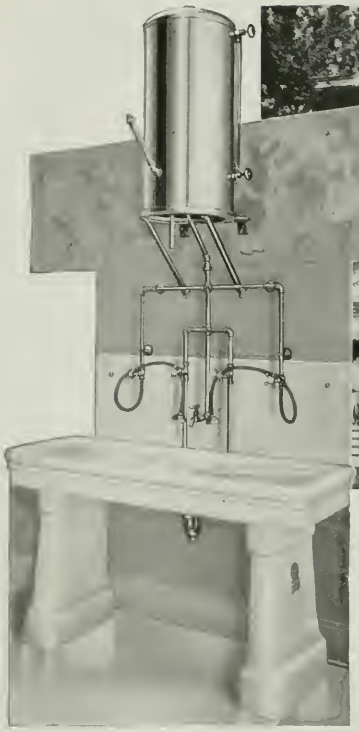

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News of the Hospitals and Sanatoriums

General

Examinations to Be Held.—Examinations will be held by the Michigan State Board of Registration of Nurses on January 12 and 13, 1921, in Lansing, Mich.

United Hospital Fund Reaches $445,000.—The amount of the United Hospital Fund of Greater New York, on December 4, had reached the amount of $445,000. The collection is being continued.

Considering Erection of Sanatorium.—The International Association for Machinists are considering the erection of a sanatorium for tuberculous members, to be located at some point in the Southwest. The exact size of the sanatorium is not known, but it will probably accommodate from two hundred and fifty to three hundred patients.

New Building Erected.—The great demand for x-ray and physio-therapy equipment has made it necessary for the McIntosh Battery & Optical Co., one of the oldest firms in this line, to erect a new building to provide for the growth in business. The new quarters are located at Lake and Fulton Sts., Chicago, away from the congested section of the loop.

Shriners to Build Children's Hospital.—The Shriners throughout the United States, four hundred and ten thousand of them, will be called upon for two dollars apiece, for the building and equipping of a children's hospital, the site of which is not yet determined. The hospital is to cost $1,000,000, of this sum $100,000 has been voted from the treasury of the Imperial Council.

New Process for Reducing Bacilli in Milk.—The Medical Research Committee in England has found that, by the use of electricity, milk affected with bacilli may be rendered usable. Although it is not sterilized as we understand it, the percentage of bacilli is reduced, not by the direct action of the electricity, but as a result of the heat generated in its passage. Milk so treated has been fed to children, who seem to thrive on it.

Red Cross Work Extensive.—The American Red Cross spent $51,000,000 last year, in furnishing relief to war-stricken Europe. The activities of the organization in Belgium and France, however, have been brought to a close, but before this was done supplies were provided for 3,865 villages, and 30,000,000 persons were benefited. Red Cross work is now confined to Poland, Serbia, Montenegro, Albania, South Russia, West Russia, and the Baltic states.

Navy Cares for the Sick.—Caring for the sick has always been considered of paramount importance to the navy. Aside from twenty-two hospitals in the United States, the navy has four others in foreign countries. During the war eighteen temporary hospitals were established in France, England, Scotland, Greece, and Italy. On board every ship provision is made for the sick, no matter how small or large the vessel, it is equipped to care for the comfort and safety of the men on board.

Base Hospital Closed.—The United States Base Hospital No. 43, at Grassmere, Staten Island, the largest hospital maintained by the War Department along the Atlantic seacoast, has been formally closed, although some part of it will be continued in operation by the Public Health Service of the Federal Government, for the treatment of wounded soldiers holding insurance. The base hospital comprises two hundred and fifty acres, and cost the government $10,000,000.

Low Mortality Rate in 1919.—The Census Bureau annual bulletin on mortality statistics for the death registration area, in continental United States, shows 1,096,436 deaths as having occurred in 1919. This represents a rate of twelve and nine-tenths per 1,000 population, and is the lowest rate recorded in any year since the establishment of the registration area. In striking contrast to this was the unusually high rate for 1918 which was eighteen per 1,000, due to the epidemic of influenza.

Subjects of Medical Research.—The following diseases will be made the subject of special study at the Rockefeller Institute for Medical Research, this winter, and patients suffering from these diseases will be admitted to the extent of the hospital facilities: acute lobar pneumonia, and other acute pulmonary infections, measles, acute rheumatic fever, cardiac disease, and nephritis. Physicians desiring to send patients suffering from these conditions may apply to the resident physician.

Open Hospital and Clearing House.—United States Public Health Service Hospital No. 72, at Augusta, Ga., has been formally opened, and forty patients, suffering from nervous and mental diseases, have been transferred to the institution. The capacity of the hospital is 250 beds. The hospital will serve the fifth district of the Public Health Service, including North Carolina, South Carolina, Tennessee, Georgia, and Florida. A clearing house for military patients has also been established in the district, at Public Health Service Hospital No. 48, Atlanta, where patients with mental and nervous diseases will be kept under observation before being assigned to the particular hospital which seems best suited in a given case.

Mission to Roumania.—A Canadian Nursing Mission left Canada on November 3, for Roumania, where they hope to introduce modern nursing methods. The Mission consists of a matron, five certified nurses, one masseuse, and one dietitian. It is to remain in Roumania for two years, during which time the Queen of Roumania has provided a completely furnished nursing home for its accommodation, and the King's physician is to be in

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XVI *February, 1921* No. 2

SOUTHERN BAPTISTS CONSTRUCT WELL PLANNED SANATORIUM

PART ONE

FROM THE ADMINISTRATIVE STANDPOINT

By H. F. VERMILLION, M. D., Superintendent, Southern Baptists Sanatorium, El Paso, Texas.

THE property of the Southern Baptist Sanatorium consists of 143 acres of land valued at $25,000, a water plant having an elevated storage tank connected with the city plant, and an administration building erected just before the war at a cost of $65,000.

This property was given by the people of El Paso, in the hope that it would be used as a great plant for the healing of stricken humanity. The Home Mission Board has title to the property and is entrusted with founding and directing the sanatorium. The building has been remodeled and furnished, and the plant is now valued at $112,000.

Part I.—From the administrative standpoint. By H. F. Vermillion, M.D., superintendent, Southern Baptists Sanatorium, El Paso, Texas.

Part II.—From the architectural standpoint. By Carl A. Erikson of Richard E. Schmidt, Garden & Martin, Architects, Chicago, Ill.

The sanatorium is located at an elevation of 4,500 feet, on a table land on the east side of Mount Franklin, a mountain more than 7,000 feet high. The property adjoins the city of El Paso, Texas, and not only commands a view of the Franklin Mountains, but also a magnificent view of the mountains of New Mexico, western Texas and Northern Mexico, whose border is about six miles away.

El Pilar, a noted mountain peak nearly one hundred miles away in Mexico, and several mountain ranges in northern Mexico, can be seen from the broad front porch of the administration building. From this point also the peaks of the White Mountains of New Mexico, more than one hundred miles distant and rising 12,000 feet above sea level, are visible.

Across Fort Bliss one can see the green valley of the Rio Grande in panoramic view for nearly a hundred miles. Even people who have lived in the West and who are accustomed to magnificent scenery are much impressed with nature's grandeur here, and those not accustomed to such views are entranced.

The balmy, sunny days, the cool, refreshing nights, the exhilarating air, the mild winters, the magnificence and grandeur of the scene, combine here in a remarkable degree to heal those who suffer from tuberculosis.

The plans for development in the immediate future call for the expenditure of $500,000 on buildings and equipment, and for $500,000 endowment. This building program will cover a period of about four years, and then, no doubt, other developments will be projected. At the end of this four years we hope to have room for 200 to 250 patients. The block plan will be carried out in the buildings, and contracts will soon be let for the erection of the first unit.

Dr. J. A. Standring is medical director. He has

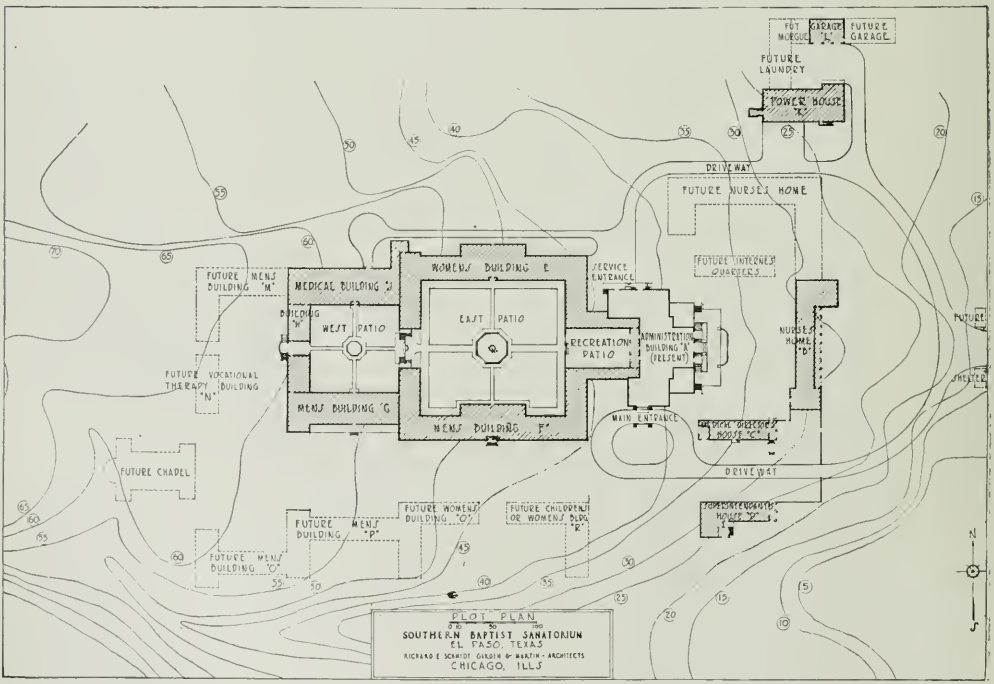
been for many years in sanatorium work, and has been connected with some of the best sanatoriums in the Southwest. Richard E. Schmidt, Garden and Martin, of Chicago, are the architects. They have been given a free hand and have been instructed to make the institution modern and scientific in construction and equipment. The superintendent has spent many months in the study of sanatorium construction, equipment, and methods. He is fortunate in having the help of the medical director, the superintendents of many sanatoriums, and many other experts whose suggestions are invaluable.

Only the preliminary sketches prepared by the architects are in hand as yet, but by the time this is in print contracts for the first unit probably will have been placed. This unit will contain a modern nurses' home; homes for the medical director and the superintendent; power house, including quarters for male help, hot water supply and steam heating for the entire plant, refrigeration plant, laundry, and cold storage rooms; medical building, including medical director's office, four other doctors' offices, patients' waiting rooms, drug and supply rooms, dressing rooms, lavatories, sterilizing room, pneumothorax room, operating room, x-ray room, laboratory, and morgue.

We hope in this unit to have rooms for about 100 patients. The patients' quarters will form the north and south sides of a patio, and the north side of a future patio, women's quarters being on the south side and men's on the north. The patients' rooms will have nearly the entire south front, made of disappearing windows, and on the north ample ventilation is provided; warmed dressing rooms, closets, and baths are built in, so that patients may have access to these comforts at all times, and yet sit and sleep in the open, fully ventilated room.

Wide verandas and a large recreation hall supplement the comforts of a climate where patients can stay in the open most of the time. Fountains, grassy lawns, flowers, shrubs, and trees will add to the beauty and comfort of extensive patios and wide avenues. Everything will be provided that can give comfort, variety, and pleasure to the otherwise monotonous life of the health seeker.

The present building has business offices, recreation hall, ample kitchen, and dining hall, sleeping porches, wide verandas, linen rooms, storage rooms, temporary room for x-ray laboratory now in operation, temporary office and treatment room for medical director, and temporary quarters for employees. At present we care for from fifteen



Plot plan of Southern Baptist Sanatorium, El Paso, Texas.

Birds-eye view of the Sanatorium.

to twenty-five patients, but we take ambulant patients only. Our rate is about half the cost of maintenance. When present plans are carried out, somewhat higher rates will be charged. There are a few free beds, and the number will be increased as our endowment grows.

We have a correspondence department that distributes a great deal of information concerning the prevention of tuberculosis and the care of patients. This department will be increasingly useful, and will be extended to include traveling nurses and lecturers. Later on we shall probably also do research work.

It is hoped by the management of this sanatorium that we shall be able at some time in the near future to render much help to the negro race. We do not know in just what way we can serve them best, but we hope to secure an endowment fund, the income of which may be used to combat tuberculosis among the negroes. We have no immediate prospects of such a fund, but a great majority of the negro race are Baptists, and we have the most direct avenue of approach to them, and could easily be of great service if we had the means.

Negroes are very much more susceptible to tuberculosis than whites, and where the population of the two races is equal, three negroes die of the disease for each white person. On account of their industrial and domestic relation to the whites the negroes are a great menace to health, and are, no doubt, the prolific source of the spread of the disease, not only among their own people but among the white race also.

PART TWO

FROM THE ARCHITECTURAL STANDPOINT

By CARL A. ERIKSON of Richard E. Schmidt, Garden & Martin, Chicago, Ill.

IT IS refreshing to find that privately controlled charity has not abandoned the tuberculous patient. As a phase of social maladjustment, tuberculosis is a governmental problem of stupendous proportions; as a disease devastating the community it should have the support of both public and private funds. Unfortunately, however, neither public nor private charity has kept pace with the needs. The widespread belief that certain climates are more favorable to the treatment of tuberculosis has placed most of the private sanatoriums in locations far from those who could subscribe most to them. Charity sanatoriums located in these more favored zones must necessarily be supported by nationwide organizations. A number of religious and fraternal bodies have already established sanatoriums and others are considering similar action.

None begins more auspicuously than that of the Southern Baptists. An endowment of $500,000, a building fund of an equal amount, 143 acres of land in the foothills of Mount Franklin, and policies determined by an extraordinarily broad vision and a tempered enthusiasm, place this sanatorium in a very enviable position. The nature of its control, the Home Mission Board, consisting of elected representatives from the entire church, insures that sectionalism will be forgotten. The traditions of the Church insure no less that it will be non-denominational. The directors confidently expect that this hospital will be the center of research and education in the Southwest, and that its influence in combating the "white plague" will reach all over the South. Surely we may expect much from an institution so fortunate in the initial supply of its material

needs, its policies, and its vision. Intelligent study, criticism, or discussion of the accompanying plans is not possible without an understanding of the treatment of the disease, of the patient's social, economic, and physical condition, of the climate, of the site, and of the funds available. The readers of THE MODERN HOSPITAL are familiar with the treatment of the disease. The quality of the delightful El Paso climate need not be discussed here. The available funds have already been mentioned. The site and the patients are the two major factors which, superimposed on the other factors of the problem, led to the adoption of a plan which is unique in many respects. It has been adopted, after studying many other possibilities, as being best fitted for this sanatorium. As each institution has its peculiar conditions, this plan is presented only as a guide. To make it of greater assistance, the special conditions surrounding it are outlined.

In spite of widespread warnings to the contrary, the tuberculous still come here hoping to find "light occupations," and with funds for a short stay only. Many of these grow weaker, and who is there to care for them? State, county or city funds seem to be out of the question, for these people are not citizens of the community. There are also a large number, rich and poor, who hopefully defer treatment until the efficacy of "altitude, sunshine, and equable temperature" are the last desperate venture. These patients will be thrust upon the sanatorium, and it will require careful management to insure that the hospital is not preëmpted by this class.

A more hopeful class will be those sent from their homes over the entire south. Sanatorium beds are few, and early diagnosis may be difficult for the average physician, so that even this will give many "moderately advanced" and very few incipients. Every indication emphasizes the fact that, in common with most sanatoriums, it will be largely devoted to the care of the "moderately advanced" and the "advanced." It is hoped, however, that treatment of incipients will be ultimately the primary care of the sanatorium.

The site, always important, is here one of the mainsprings of the plan. In the eastern foothills of Mount Franklin, eight miles north of the city and hundreds of feet above it, the sanatorium overlooks hundreds of miles of valley below. To the north, south and east rise the mountains fifty miles away; to the west rises the stern and bleak Mount Franklin, whose brown slopes seamed with deep arroyos are like the wrinkled, weather beaten face of a kindly old man. Majesty, no matter how serene, must be domesticated lest it become overpowering and depressing to the human ants burrowing in the hills. To keep the views in all their majesty and yet confine them was one distinct phase of the problem. The grounds, too, would be too hopelessly arid to be enjoyed for long by those not accustomed to its peculiar beauty. Water is, as elsewhere, the magic wand to which the soil responds surprisingly; the vegetation becoming almost tropical in its luxuriance when abundant water is available. But water on the mountain side is hard to get; to maintain a large area covered with grass is too expensive in initial cost, and maintenance. Yet this was an essential of the scheme.

The Chapel, Southern Baptist Sanatorium.

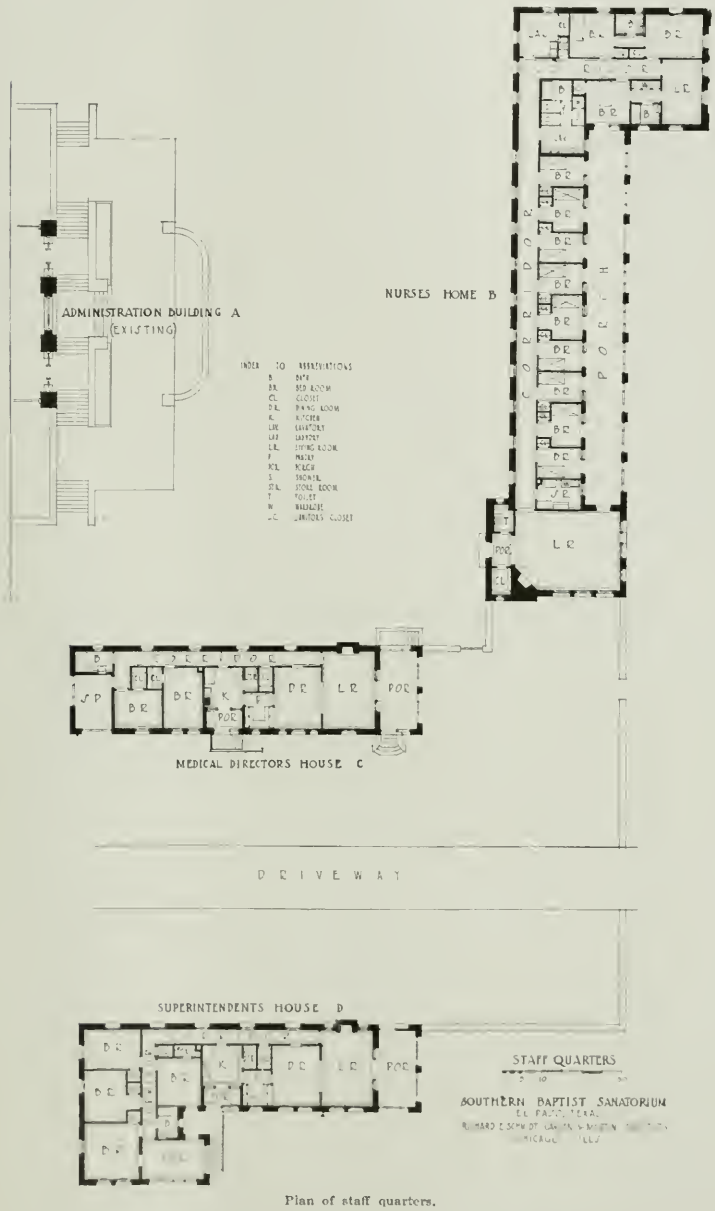
The topography was such that only one building site was available; a gently rising table land directly west of an existing building between two deep arroyos, varying in width from 350 to 700 feet and the entire length of the property.

Fortunately the existing building (built for a country club) stood well towards the road on this table land. This building with practically no alterations made an excellent administrative recreational and dining center.

How the Problems Were Met

An examination of the group plan will indicate how the various problems have been met. The administration building, "A," being already built, the probabilities that the first years of the institution would be devoted largely to the care of the

moderately advanced, have been recognized by attaching the first buildings, "E" and "F," closely to this center. The buildings "G" and "H" are



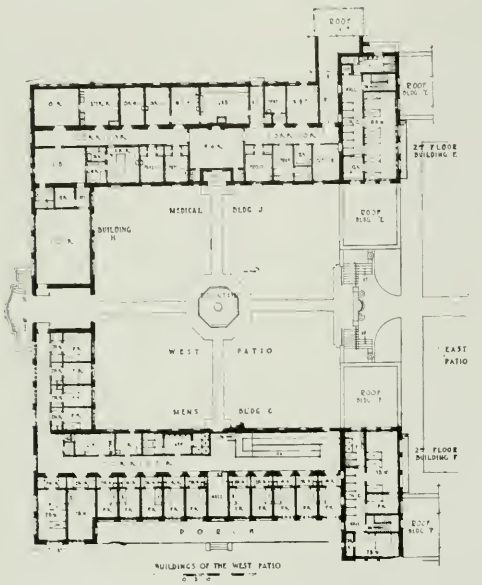
Plan of staff quarters.

of a similar nature. The buildings on the Chapel Court and westward are not yet designed, and will not be until the needs are more fully developed. These buildings may continue the infirmary buildings as represented in "E," "F," and "G," or may be buildings for ambulatory cases and of a radically different type. South of the entrance avenue, it is planned to place a number of buildings for the ambulatory cases; the exact arrangement has not yet been studied. The medical center has been divorced from the administration building, and is placed in the center of the patient's quarters, where bedridden cases may be easily brought for examination, yet it is conveniently accessible to the ambulant.

The administration building, "A," forms a most convenient barrier between the personnel quarters, "B," "C," and "D," and those of the patients. The advantages are obvious. The power house is so located that it will take all of the steam returns from the building and yet so that the prevailing breezes will blow any stray smoke away. Its convenience to the highway (only slightly above it) is another distinct advantage.

To obtain the oasis of tropical luxuriance, so easy with water, the buildings have been built around a series of patios. This confines the use of water to a limited area, and provides by contrast, greater emphasis on the loveliness of the patios. Directly west of the administration building is the first patio, an offshoot from the larger east patio. This one differs from all others, in that it is paved with cement and tile and is, relatively, quite small. This is the open air recreation hall, a supplement to the enclosed recrea-

tion space in building "A." Five steps above this one is the west patio, a little over half an acre in extent. In the center is a large fountain and it is



A. E.—Ambulance entrance.
2 B. W.—2-bed ward, 3-bed ward, etc.
Dent.—Dentist.
Dir. O.—Director's office.
Dir. of O.—Director of occupation.
Dr. C.—Dressing closet.
Dr. R.—Dressing room.
Dk. R.—Dark room.
D. S.—Drug storage.
J. C.—Janitor's closet.
L.—Linen.
Lab.—Laboratory.
Lav.—Lavatory.
Lect. R.—Lecture room.
Lib.—Library.
M. E. R.—Medical examination room.
M. R.—Machine room.
N. S.—Nurses' station.
N. & T.—Nose and throat.
O. R.—Operating room.
Phar.—Pharmacy.
Phys. O.—Physician's office.
P. W. R.—Patients' waiting room.
P. R.—Private room.
Q. R.—Quiet room.
S.—Shower.
Ster. R.—Sterilizing room.
Sup.—Supply.
St. R.—Store room.
T.—Toilet.
U. R.—Utility room.
X-R. R.—X-ray room.

bordered by a broad concrete pavement. Here the patients may enjoy an ideal rest hour, sheltered by gay umbrellas from the brilliant El Paso sunshine which sparkles on the fountain. Fourteen steps above this patio is the west patio, smaller but otherwise similar. Beyond this will be developed additional patios as the needs are indicated. From the recreation room in building "A," an uninterrupted and constantly rising vista up the patios will lead the eye far up Mount Franklin.

The entrance avenue will be less luxuriant in its foliage, properly shaped trees and grass will be the only vegetation. The buildings south of this court will each have a simple garden between them and the brown hillside. The personnel patio, directly east of building "A," will be simply and broadly handled, much like the entrance court.

One Story Plan Adopted

After careful consideration, it was determined to make most of the buildings one story high. This was found to be more economical in building and maintenance.

With these plans determined by the needs, the architectural detail was a very simple matter. With a plan such as this, and in El Paso it needs no architect to forecast the type of design. The architecture of the seventeenth century still survives in many buildings near El Paso. Generally these were of adobe, and of the simplest outline, with ornament sparingly used. The missions of St. Augustine, San Antonio and Southern California are our best representatives of this colonial architecture. Its simplicity when combined with attractive proportions makes an almost perfect basis for the exterior design. The needed vertical emphasis has been secured by the dominance of the chapel group. The materials are stucco on stone walls, sloping roofs of fire flashed tile, and ornament of stone, terra cotta, or colored tiles.

Little comment is necessary, for plans of each building are self-explanatory. The nurses' buildings, "B" and "E," and the officers' buildings, "C" and "D," need no comment other than to call attention to the single rooms and sleeping porch for the nurses, and to the two porches on each side of the houses.

The administration building, "A," provides an admirable recreation hall, dining room, and kitchen. On the ground floor is ample room for storage, and for some servants' quarters.

The policy of the institution being to care for rich and poor, all classes of quarters are provided in the patients' buildings, "E," "F" and "G." For the wealthy are provided a very few suites consisting of a porch, room, and bath. There are a few more consisting of room and bath. The balance are one and two-bed rooms except for one three-bed room, and two six-bed porches for ambulatory patients.

The typical patient's room (whether one or two-bed), requires special attention. Everyone who builds a sanatorium is confronted by a number of difficult problems. For instance, the tuberculous patient must have fresh air and rest, but occasionally he must have heated quarters for shorter or longer periods. It has been customary to meet this difficulty by building a porch partly or entirely across the front of the room. Either scheme is questionable, as it shades the room, makes ventilation difficult, destroys privacy, requires much labor in moving the bed, is extravagant of space, and is consequently expensive. If the porch is omitted and wide glazed openings provided in the room, the patient ordinarily has no heated place to dress except at some distance from his room. After careful consideration and study, the typical patient's unit, shown in these plans, was first evolved for the Adams County (Ill.)

Sanatorium and later perfected at the Ashland-Bayfield Iron County (Wis.) Sanatorium. It consists of a room which may be quickly converted into a porch by opening all the windows. The radiator is controlled by a removable valve handle, so that its regulation is dependent on the physician's instructions. Directly back of this is a dressing room four feet wide, with dressing lockers. This room is heated as the patient desires. It is separated by the large glazed door with hinged transom from the bed room proper. In warm weather it may be opened and the rooms are practically one. The door to the corridor has its transom, both of these, however, being of wood. Most of the buildings have rooms on one side of the corridor only, insuring excellent ventilation in the rooms and the corridors.

Details Carefully Worked Out

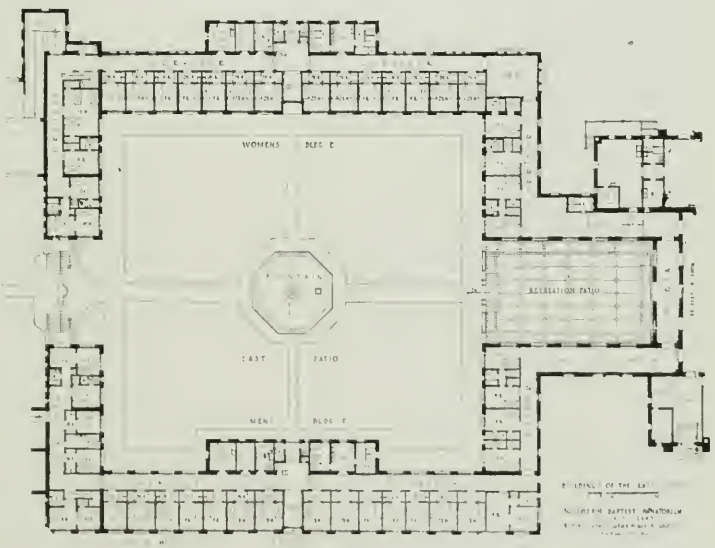
The arrangement of the bathing, washing, and toilet rooms in the patients' buildings is worthy of special attention. Each patients' building is completely arranged for the care of the patients. A nurses' call system of the silent type will be installed, as will a doctors' call system, with the sending station at the telephone switchboard in the administration building. For obvious reasons telephones are not provided in the patients' rooms, though each building has a telephone booth centrally located.

Food service will be from the existing kitchen to the ambulant patients' dining room adjacent in building "A," or to the serving pantries in the various buildings, and from them to the bedridden patients, on trays. Ample kitchen and storage space is provided here. Serving pantries are provided with electric hot tables and plates as well as cases, sinks, etc.

The completeness and convenience of the medical building, "J," should also be noted. At the request of the officials of the National Tuberculosis Association a lecture room was added. The society hopes to use this plant to give brief courses of lectures to physicians and nurses, and to stimulate the interest of the laymen.

Adjacent to the boiler room, in building "C," is a large ice-making room and ample cold storage boxes. The water used in the refrigerating machinery is cooled by spraying in the fountains of the east and west patios, converting a utilitarian necessity into a decorative accessory. The heating is by means of vacuum steam from two 125-horsepower high-pressure boilers, with room for a third. Coal bunkerage is so arranged that trucks may drive directly over it and dump, and yet the ashes may be wheeled out the north side and dumped into the arroyo, an arrangement only possible with nature's assistance. Over the engine room four servants' rooms have been provided. Very few of the buildings have basements, the floor being laid directly on grade, and the necessary pipes being carried in trenches. All sterilization is by electricity.

It is hardly necessary to add that all the corners have "sanitary" coves. The floors and base are of terrazzo, the walls of hard plaster painted generally with flat wall paint, but in the sewing, utility rooms, etc., and in the medical building,



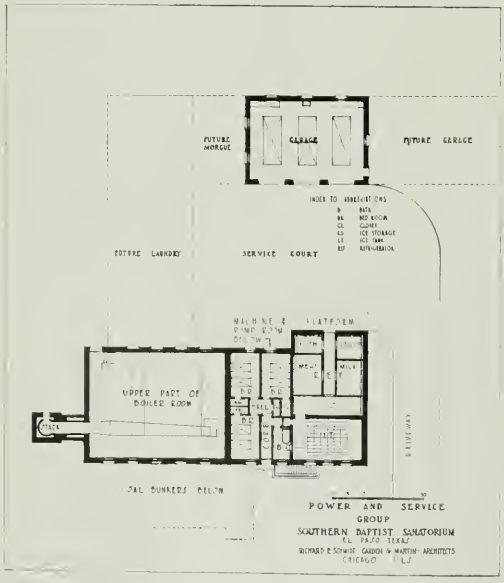
Buildings of the East Patio.

A. E.—Ambulance entrance.
B.—Bath.
B. R.—Bed room.
2 B. W.—2-bed ward, 3-bed ward, etc.
Cl.—Closet.
C. V.—Coal vault.
Dent.—Dentist.
D. R.—Dining room.
Dir. O.—Director's office.
Dir. of O.—Director of occupation.
Dr C.—Dressing closet.
Dr R.—Dressing room.
Dk. R.—Dark room.
D. S.—Drug storage.
Boi. R.—Boiler room.
I. S.—Ice storage.
I. T.—Ice tank.
J. C.—Janitor's closet
K.—Kitchen.
L.—Linen.
Lab.—Laboratory.
Lav.—Lavatory.
Lect. R.—Lecture room.
Lib.—Library.
Lau.—Laundry.
L. R.—Living room.
M. E. R.—Medical examination room.
M. & P.—Machine and pump room.
M. R.—Machine room
N. S.—Nurses' station.
N. T.—Nurses' toilet.
N. & T.—Nose and throat.
O.—Office.
O. R.—Operating room.
P.—Pantry.
Por.—Porch.
Phar.—Pharmacy.
Phys. O.—Physician's office.
P. W. R.—Patients' waiting room.
P. O.—Private office.
P. R.—Private room.
Q. R.—Quiet room.
Ref.—Refrigerator.
R. R.—Recreation room.
S.—Shower.
Ster. R.—Sterilizing room.
Sup.—Supply.
St. R.—Store room.
Sun P.—Sun porch.
S. R.—Serving room.
Supt. of N.—Superintendent of nurses.
S. P.—Sleeping porch.
T.—Toilet.
T. B.—Telephone booth.
U. R.—Utility room.
W.—Wardrobe.
X-R. R.—X-ray room.

A corner of the East Patio.

the walls are finished in enamel paint. Lighting fixtures in the patients' rooms are of the bracket type with outlet for examination or reading lamp, or other accessories. In the dressing rooms the lights will be the semi-indirect ceiling fixtures. Flush or slab doors are stained to imitate walnut, and varnished. Door jambs are of wood of a sanitary hospital type. Throughout the entire group, patients' and personnel quarters as well, ease of cleaning has been constantly striven for in the detail of the finish. It has not been carried to the ridiculous extreme sometimes found, for common sense and experience have been applied to each of these details.

It is the hope of the architects that this sanatorium will contribute a little through example and education to the amelioration of the almost appalling problem of the care and cure of the tuberculous.



Plan of power and service group.

SOCIAL SERVICE MAGAZINE STARTED

After two years of publication, *The Hospital Social Service Quarterly* has become a monthly magazine to be known as *Hospital Social Service.* Medical social service in hospitals has passed the formative stage, and is now recognized as a distinct department.

The Hospital Social Service Quarterly was first published in February, 1919. Prior to this time the chief writings on the subject were embodied in the works of Dr. Richard Cabot, and in occasional special articles in hospital and medical journals. The Proceedings of the Hospital Social Service Association of New York City preceded the *Quarterly,* and consisted chiefly of papers read at the meetings of the association. The first issue of the monthly magazine contains the survey of hospital social work in the United States, made by the American Hospital Association last year; an account of social work in hospitals of Toronto, by Mr. Robert Mills of the Toronto Health Department; an article by O. M. Lewis and two collaborators of the division of venereal disease of the Massachusetts General Hospital; a discussion of methods of parental authority, by Miss J. L. Beard. Besides news notes and abstracts of articles of interest to the medical social worker, there are departments devoted to the American Association of Hospital Social Workers, and to cardiac, nutritional and handicap work.

RED CROSS PEACETIME ACTIVITIES GROW

The bulletin of the City Club of Chicago referring to an address made there by Dr. E. A. Peterson, director of the Red Cross department of health service, says, "The health center has become one of the chief peacetime activities of the American Red Cross. Its object is to prevent disease and promulgate right living; its main function is to dispense health advice."

When the Red Cross came out of the war it found itself a huge organization of twenty-four million members, who having once tasted the joy of social service, did not wish to give it up. The society turned to the health field. Although there were already 210 organizations in the field, the high mortality rates showed that there was plenty of room for another one. The plan of attack involved first the utilization of the force of neighborly advice. People listen to, or at least follow the advice of neighborhoods much more readily that that of experts. So it was the plan of the Red Cross to get the advice of experts into the mouths of neighbors. This being accomplished by health centers whose functions are: (1) to answer health questions, (2) to display in attractive form advice to individual groups, (3) to promote exhibits appealing to the eye, (4) to centralize all health activities, (5) to attack them problem of undernourishment. These things are accomplished without the help of a staff of highly trained experts. The next stage of the work will be the establishment of clinics so that physicians' services may be more available to the community.

PUBLICITY AND PROGRESS IN NURSING EDUCATION

By S. S. GOLDWATER, M.D., Director, Mount Sinai Hospital, New York City

IT IS reported that Michigan's stirring campaign for probationers has resulted in overcoming the shortage of pupil nurses in that state. Illinois is now following Michigan. About a year has elapsed since the managers of a group of hospitals in Chicago came together, to organize what is now known as the Central Council for Nursing Education. The Council for Nursing Education promptly established an office, installed a full-time executive secretary, and began an appeal to the women of Illinois to enter the nursing profession.

In discussing the work of the Central Council recently, Miss Wilson, a member of the board of managers of the Children's Memorial Hospital in Chicago, and a leader in the organization and development of the Council, said that the Council now includes representatives of twenty-one hospitals, chiefly located in Chicago, St. Louis, and Kansas City. A much larger membership would be enlisted immediately if the ban on hospitals which are conducted for profit were lifted. The organization and its executive officer have thrown themselves with ardor into a recruiting campaign in which interesting methods are being used with satisfying results.

What Is the Need for Nurses?

The organized campaign for probationers is not likely to be confined to the Middle West. At this moment the hospitals of New York, rarely as alert as they should be in such matters, are considering the formation of a Council on Nursing Education for the Atlantic States, and the prediction has been made that within a year the whole country, section by section, will be organized in the same way.

A movement which aims to create an adequate supply of pupil nurses for all of the training schools of the country merits the support of hospital boards and, indeed, of every one who is interested in the public health. Is the movement likely to succeed? Before this question can be answered intelligently, two other questions must be put and answered. First, precisely what is the need which the Council for Nursing Education and the whole publicity movement are intended to meet? Second, what attractions have the hospitals to offer?

What is the need for pupil nurses? Would it be fair to try to enroll in training schools six times the present number of pupils? What are the attractions which the profession of nursing offers? First, education; but how efficient is that education? Are training schools sacrificing their pupils to the care of the sick for whom better provision should be made? Second, a livelihod; but is it a fair livelihood? After spending three years in training, the nurse may get a living wage for twenty years, but is there any provision for old age? Third, opportunity for service; is the training sufficiently flexible to fit her for any service which might be open?

First, as to the present and prospective need: in round numbers there are in the general hospitals of the United States that undertake to care for persons suffering from acute diseases, about three hundred thousand beds (we need not stop to quibble about exact numbers, for if this estimate is 10 per cent high today, it is pretty certain to be 10 per cent low tomorrow, when backward sections make up their present deficiency in hospital beds). For many years the nursing work in general hospitals was conducted on the basis of a twelve-hour working day, but latterly a number of hospitals have established an eight-hour day. The prediction may safely be made that an eight-hour day will ultimately prevail, and I shall, therefore, base my calculation on this assumption.

Need Three Hundred Thousand Nurses

Under an eight-hour system, three hundred thousand nurses would supply three hundred thousand hospital patients with service at the rate of one nurse on active duty for every three patients. An allowance of one nurse for three patients is excessive for the night shift, but this apparent excess is offset in a number of ways; for example, approximately one-twelfth of all pupil nurses are always off duty on account of vacations or illness (this allows for a three weeks' vacation and an average of one week of illness per annum); not less than one-eighth of the pupils in well conducted schools are beginners undergoing a probationary course, and not yet entrusted with responsible ward duty; while other groups, aggregating an additional one-eighth of the total number, are ordinarily employed outside of the wards, in the diet kitchens, operating rooms, supply rooms, outpatient or social service departments, etc. We must, therefore, assume that out of a total hypothetical enrollment of three hundred thousand pupils one-third (one-twelfth plus one-

eighth plus one-eighth) are not actually available for ward duty. In other words, under existing working conditions, an enrollment of three hundred thousand nurses would yield a force of only two hundred thousand nurses available for bedside service, day and night included.

Thus far it has been assumed that the classroom work of junior, intermediate, and senior nurses, or in other words, of all nurses above the rank of probationer, is done outside of the eight hour day. This appears to be a common practice today, but there are indications that the practice will not last long, and in any general review of the situation, present and prospective, it would be a mistake to disregard the widespread demand that the eight hour day be so arranged as to include the time devoted to study and instruction. If this is done, it will ultimately become necessary to make an allowance of, say, two hours out of the eight hour working day for class work and study. Instead of three shifts, four will be required. This will reduce the number of nurses actually engaged in ward work at any one time from one-third of 200,000 or 66,666, to one-fourth of 200,000, or 50,000. We assumed at the outset the enrollment of 300,000 pupil nurses to care for 300,000 patients, and out of such an enrollment it does not appear to be reasonable to count on the actual presence in the wards of more than an average of 50,000 or one nurse to six patients. Is this standard too high? The proposed or calculated allowance may still be unnecessarily liberal for the night hours, but as an average for the whole twenty-four hour period, it will not seem excessive to those who are familiar with actual hospital conditions.

Pupils Cannot Do All Hospital Nursing

Remember that we have been talking only about general hospitals, and have not brought into the calculation the 400,000 or more beds to be found in hospitals for the insane, sanatoriums for the tuberculous, hospitals for chronic diseases, homes for the aged and infirm, convalescent homes, etc. The hospitals that we have been considering are those which feel that they have the right to, and which, as a rule, do attempt to maintain training schools; and it appears that if these hospitals propose to have all of their nursing done in a reasonably satisfactory manner by pupil nurses, there must be an enrollment, sufficient to enable the hospitals to graduate 100,000 nurses annually. The present graduation rate is about 15,000. Would it not be rash to expect any publicity campaign to bring about a six- or seven-fold increase in undergraduate nursing enrollment? The inference is plain. We must abandon the attempt to assign to pupil nurses, exclusively or even chiefly, the task of caring for the sick in general hospitals. It is attempting the impossible.

Even if the staggering enrollment that seems to be required to maintain the system of general hospital nursing by pupils exclusively, could be accomplished, its accomplishment would be a stupendous fraud, for while more graduate nurses for bedside work may be needed than are now available, it cannot be maintained that, if the country graduated six or seven times the present number, the greater number would be profitably employed. Year by year the relative need of the acutely sick in and out of hospitals changes; the nursing need within the hospital relatively increases, while the need outside of the hospital relatively diminishes, for every year the hospitals care for a larger and larger proportion of the sick. The hospitals cannot promise post-graduate employment to an army of 300,000 pupils, graduating at the rate of 100,000 per annum, and it would be wrong to train such numbers, even if it were feasible to enroll them.

Hospitals Must Have Paid Staff

If what has been said is true, it follows that a large part of the personnel of the hospital must and should consist of permanent employees, rather than pupils in training. I shall not attempt here to analyze hospital work with a view to showing just what proportion of the permanent personnel of the hospital should consist of trained nurses, and what proportion of orderlies, attendants, ward maids, or nurses' helpers otherwise named, but for the moment will confine myself to the statement that the hospital nursing organization of the future cannot and should not be wholly or mainly an organization of pupils in training. On the contrary, there should be a permanent staff of paid workers—trained nurses and others. The task which lies before us, therefore, is not the task of securing a supply of pupils sufficient to care for the whole number of sick in hospitals. A serious attempt should be made, nevertheless, to enroll a larger number of pupil nurses than has heretofore been available, and the work of the Central Council for Nursing Education, and of all similar agencies, merits hearty support.

Hospitals Must Realize Own Needs

Besides making the women of the country aware of the possibilities of nursing, the Council may legitimately undertake to make the hospitals aware of their own needs and prospects, as we have just analyzed them. There are financial and other questions involved in this analysis which are of the utmost importance. Large sums of money are needed to provide proper housing for pupil nurses, and other large sums for the payment of

salaries for the necessary permanent staff. With the introduction of large permanent staffs, the relation of the nursing school to the hospital will change; reorganization will become necessary, and educational progress will be facilitated.

There are three things which the publicity agent can offer to young women who are willing to take up nursing as a career; an education, a livelihood, and an opportunity for service. How substantial an education, how satisfactory a livelihood, and just what opportunities for service, are questions that prospective candidates have the right to ask, and these questions should be anticipated by the hospitals. Searching self-criticism along this line will be most helpful.

How efficient is the teaching of the average training school? Assuming that an approved curriculum has been adopted and announced, does the course, as actually given, invariably carry out the promise of the published outline, or is essential teaching neglected, in order that the needs of the hospital may be met? It is obvious that the needs of the hospital must be met, for the sick cannot be neglected; but it by no means follows that pupil nurses must be sacrificed to this end. A state inspector of training schools recently declared that less than 10 per cent of the small hospitals of her state were adhering to their teaching programs; the remaining 90 per cent were reported to be taking unfair advantage of their pupil nurses by surrendering the rights of the pupils in the alleged interest of the sick. Such conditions are not encouraging to the sincere publicity agent; through pupils already enrolled, these conditions become known to prospective students, and they do not contribute to the success of a publicity campaign.

Is a Three Year Course Necessary?

In the matter of earning power, all that the hospitals can promise to graduates is a fair livelihood for a period of fifteen or twenty years after graduation. Contemplation of the later life of the average graduate is not reassuring, for there is little active demand for elderly nurses, apart from maternity work and the general nursing of a few appreciative families. If the hospitals are to continue to bring large numbers of women into the nursing profession, and in so doing cut them off from other gainful occupations, should not a plan be devised that will make the economic position of the nurse a more bearable one? It is not idle security that nurses ask for; what is wanted is a reasonable guarantee against unforseen accident or illness, and a system of compensation, or a pension system, at least, that will make old age bearable. Greater economic security for the nurse would materially lighten the labors of the publicity agent in the present campaign for probationers.

The economic question cannot be dismissed without a word about the length of the course of training. Women are asking whether three full years of training are an indispensable prerequisite for ordinary bedside service. They want to know whether a woman should be asked to wait so long before beginning to earn an independent livelihood. An appeal for a two-year enrollment would probably meet with more generous response than an appeal for an enrollment for three years; and there is good nursing authority for believing that the essentials of bedside nursing can be taught to intelligent women in two years of well-organized teaching.

The success of the publicity movement could undoubtedly be enhanced in another way, namely, by making the monetary allowance of the pupil nurse during her undergraduate years sufficient to enable her to clothe herself decently, to obtain a modicum of innocent amusement, and to spend her vacation in a place and manner of her own choosing.

A word, in conclusion, about the opportunity for service. It would seem to be the duty of schools of nursing to modify the course of instruction from time to time, so that the door of every new public and private service that may properly and efficiently be performed by the trained nurse, will be directly opened to her through the instruction which she receives during her undergraduate years. The training school curriculum has heretofore been far too narrow and inflexible. A three-years course, at any rate, could be made to cover much more ground; it could be made interesting, more instructive, and more effective and valuable as vocational training. In my opinion the three-years course should be either enriched or abandoned.

THE FLORENCE NIGHTINGALE CALENDAR

A Florence Nightingale Centennial Calendar has been prepared by the Committee on Education of the National League for Nursing Education, the proceeds to be devoted to a fund for the new National Nursing Headquarters in New York. The calendar has an attractive cover in colors, and contains a short characteristic quotation from Miss Nightingale's writings for every day in the year.

As many of Miss Nightingale's books are out of print and inaccessible to the general reader, no nurse will want to miss the opportunity of securing this attractive collection of the wise, pithy, and sparkling saying of the great genius and founder of her profession.

We want the help of all the nursing schools and nursing organizations in the country in making the sale of this calendar a great success, not only because it will make people better acquainted with Miss Nightingale, but because it will be a means of putting our newest cooperative nursing enterprise on a sound basis. Calendars may be secured from Miss Albaugh, Joint National Nursing Headquarters, 156 Fifth Avenue, New York City.

AMERICAN HOSPITAL ASSOCIATION CHOOSES WEST BADEN AS PLACE FOR NEXT MEETING

THE selection of West Baden Springs Hotel, in southern Indiana, as the place of meeting for the next convention of the American Hospital Association, which was made by the board of trustees at their last meeting, January 10, 1921, brings about a peculiar cycle in the medical and surgical world. For, two years ago, during the time when the real horrors of the world war were being brought to us, as our sick and shattered lads returned home, the beautiful West Baden hotel was one of the most famous military hospitals in America. Now, many of the eminent men of the profession, who were there in service or who were called in consultation, will have an opportunity to return to it amid scenes of decided contrast. For today it is styled truly a "Temple of Happiness." Its whole atmosphere breathes happiness, relaxation, and rest, and the long hours of suffering and anxious waiting are now unknown.

Though its period of service was short, a little less than a year, its record was a brilliant one, and in the whole history of American war hospitals probably no sacrifice was as great as the one made by the management here. It did not take long, with the mighty forces of Uncle Sam behind it, to transform its hundreds of rooms into hospital wards, officers quarters, and splendidly equipped operating rooms, but the metamorphosis into its present form has meant months of anxiety and ceaseless work. Now, however, it is safely back into its place in the world, better, more perfectly equipped, and more beautiful than ever before.

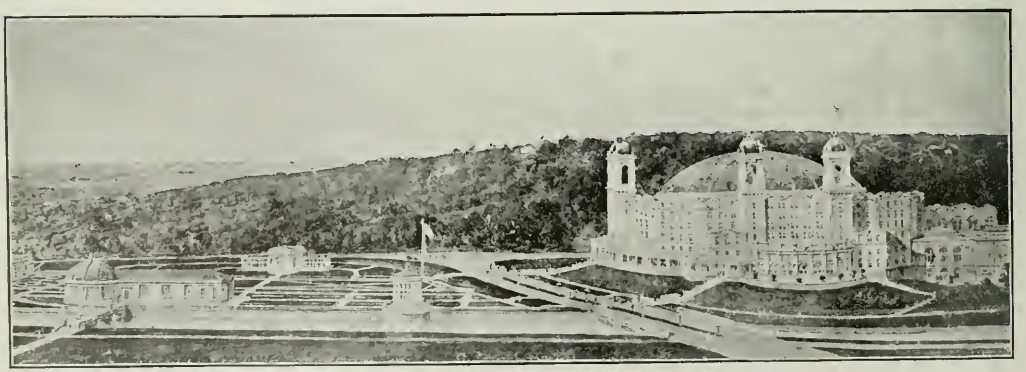
West Baden was organized as a hospital under Lieutenant Colonel Raymond W. Bliss, who remained as commanding officer throughout the period of its service. Colonel Bliss was a graduate of Tufts College and of Tufts Medical School, and had been in army medical service since 1911. Miss Alice Beatle, chief nurse, was also in charge of her department from the time of its organization until the hospital staff was disbanded, and her work was of high merit. She is one of the few people who saw the war from both sides, as she was in charge of the Red Cross Hospital at Budapest, until she was recalled by the entrance of America into the conflict.

The fame and unusual charm of this great place made it a center of activities throughout the Middle West. All organizations engaged in war work established headquarters here, and elaborate entertainments were staged for the boys. Of them all, the one never to be forgotten was the Christmas circus. Four shows had winter quarters in the village, and performing elephants, trained lions, bareback riders, and clowns by the score were brought in for the afternoon. The circus was held in the great inner court, in a huge circle around a gigantic Christmas tree, which reached to the fourth floor of the building.

The average number of patients in the West Baden hospital was from six to seven hundred, with officers, hospital staff nurses, and aides, to the number of one hundred and forty or more. At one time, the number taken care of here passed fourteen hundred. Undoubtedly, some of the prestige which the hotel, since its return to public life, has acquired as a convention center is due to the vast numbers provided for during war days.

Since the transformation of the inner court into a Pompeian room, with its marble floor, its artistic decorations, its beautiful lights and its comfortable furnishings, has been made, it has become the center of all social activities. Its seating capacity is almost unlimited, as there is not only practically forty thousand feet of floor space, but tier after tier of parlors and court rooms rising above it for audiences. The big ballroom of former days has been given over wholly as a convention hall, and it has a seating capacity of twelve hundred and fifty. Dining facilities and sleeping apartments are ample to take care of from eight hundred to a thousand guests.

Members of the Hospital Association may well look forward to a delightful vacation, as well as to an interesting and instructive session at West Baden. An attractive golf course, splendid saddle horses, bowling alleys, tennis courts, and swimming pool all add to the attractiveness of the place, while the picturesque country round about, with its caves, its rocky hills, its mysterious "Lost River," its fertile, narrow valleys, and upland orchards, holds an unceasing charm for all lovers of the big outdoors.



Birds-eye view of West Baden Springs Hotel.

VALERIA HOME, A NEW IDEA IN HEALTH CONSERVATION

By CARL E. McCOMBS, M.D., Consulting Director, Valeria Home, New York City

THE complaint is often heard nowadays that too little attention is paid to the health needs of those who are neither rich nor poor, the so-called "white collar" folk. There can be little question but that this complaint is well grounded and particularly so in large cities where the cost of living weighs most heavily on salaried workers, teachers, nurses, social workers, clerks, public employees and others, whose salaries have not kept pace with soaring prices. Readers of THE MODERN HOSPITAL will, therefore, be interested in the development of a year-round country home for recreation and convalescence, designed particularly for persons of moderate means.

Making the Home Possible

For many years prior to his death in 1914, Mr. Jacob Langeloth, president of the American Metal Company, had given generously of his means for the support of philanthropic work in this country and abroad. As a result of his keen interest in work of this kind, and his close study of its problems, he provided in his will for the establishment of a permanent corporation to carry out an idea which can not be better expressed than in his own words: "The said corporation shall be incorporated for the purpose of founding and maintaining a home to be known as the 'Valeria Home,' to be adapted and used for the purpose of a recreation and convalescent home for people of education and refinement who can not afford independent homes, or to pay the charges exacted at health resorts or sanatoriums. The home shall be open to all creeds, entirely non-sectarian and absolutely free from any religious tendencies whatsoever. Such home shall, as far as may be feasible, be self-supporting, and it is my preference that inmates shall pay weekly charges to be determined by the directors. . . . . I have observed that homes of this character have been organized for the benefit of the very poor, who are not able to pay anything for their support during their convalescence or during the period of rest necessitated by their ill health, while no provision seems to have been made for people of education and refinement belonging to the middle classes, who would not be justified in asking for or accepting charity, but who are, nevertheless, not able to pay the prices exacted for a sojourn in the usual health resorts or sanatoriums."

Having in mind the desirability of selecting a site for the proposed home which would be within easy distance of New York City, from which its guests will be chiefly drawn, the board of trustees,

A panorama view of Keg Mountain, looking north from a suggested cottage site.

of which Mrs. Valeria Langeloth, widow of the founder, is president, purchased an estate of one thousand acres about four miles back from the Hudson River in the Westchester hills and near Croton, New York. This site is admirably adapted for a year-round, country home. On high ground overlooking the Hudson River valley and the adjacent hills of Westchester County, it has every natural advantage, excellent drainage, ample supply of good water, a natural lake of great beauty, hundreds of acres of fine woodland, and sufficient farm land to supply the needs of the contemplated institution.

Farm House Remodeled for Temporary Use

In order that this splendid property might be utilized by the Government, which was then in need of facilities for the care of convalescent soldiers discharged from its hospitals, the board of trustees remodeled an old farm house on the property so that it would accommodate thirty-five guests, equipped it throughout, installed excellent water supply and sewer systems, and then placed the entire service at the disposal of the Government in 1918. The armistice came, however, before the Government could take advantage of the proffered service, and the buildings were not used until the summer of 1919, when the Vacation Association of New York was permitted to occupy them without charge.

The road to the village from the Valeria Home Summer Camp.

The buildings were formally opened by the board of trustees, as the Valeria Home Summer Camp in May, 1920, and announcements were sent out to all hospitals, nurses' clubs, and social workers' organizations, that the Valeria Home Summer Camp was prepared to receive as guests, women, preferably nurses, social workers and teachers, who needed rest in the country and were able to pay a small charge. In order that the service might be partly self-supporting, as Mr. Langeloth directed, the board of trustees approved a schedule of charges ranging from $1.00 to $1.50 per day, according to the accommodations chosen by the guests. Needless to say, this offer at such ridiculously low rates was promptly taken advantage of by nurses, social workers, teachers, and business women, and from the opening of the service on May 15, to its close on January 1, over five hundred women have been entertained at the Summer Camp for periods varying from a day or two at week-ends and holidays, to two weeks or more. The trustees did not wish to give the Summer Camp the appearance or atmosphere of a hospital or sanatorium, so no guests were accepted who required special medical or nursing supervision. Particular pains were taken also to select as guests only women of education and refinement, and all applicants were put to the test. The only other requirement was that their applications for reservation be endorsed by their employers, or secretaries of organizations with which they were identified. A house committee of three members of the board of trusteees passed finally on all applications. The wisdom of this careful selection of guests was apparent after very little experience, and as a result of it, a more congenial and happy crowd than was gathered together at the Summer Camp could not be imagined. In fact, the success of the Camp has been so marked, that the board of trustees has determined to continue it in operation through the winter, if possible.

But the Valeria Home Summer Camp, interesting as it is as an experiment in practical philanthropy, is only a first step in the development of the broad program which Mr. Langeloth had in mind. The board of trustees, realizing from the beginning the difficulty of expressing concretely Mr. Langeloth's wishes, proceeded slowly in formulating its program. The advice of leading physicians and public health authorities was sought, as to the best means of utilizing the funds at the disposal of the board of trustees and an extensive survey was made of sanatoriums, convalescent homes, and health resorts throughout the country. As the result of such study, a tentative program of development has been prepared, which seems to meet the conditions stated and implied by the testator.

The Home to Be Primarily for Recreation

This tentative program calls for an institution for recreation and convalescence, which will appeal particularly to persons of education and re-

The Westchester Hills, looking west from a suggested cottage site.

finement and of moderate means. It should be noted that Mr. Langeloth wished the home to be a place for "recreation and convalescence," and it must be assumed that the order of these two words had a definite meaning. The trustees have, therefore, planned a year-round health resort which will, first of all, meet the needs of its prospective guests for recreation and recuperation in the country, and at the same time provide such special care for convalescents as may be necessary. In other words, prevention of illness is a primary object of the service contemplated. It will be the aim of this service to reach those needing rest and recreation before they actually become sick, rather than to wait until they have passed through sickness to the stage of convalescence.

With this ideal in mind, the board of trustees saw its most practical expression in the establishment of a cottage colony group, rather than a single large building of the usual institutional type. Since the entire project is pioneering, it was determined to begin with a few cottage units, and to expand the service as the demand for service grows, so that many of the mistakes common to institutional planning may be avoided. Beginning then, with six cottages, each housing about twenty-five people, it is the board's intention to make this group the center of a complete self-contained health resort. In addition to the cottages, there will be a central dining room and service building, an administration building, a club house or center of indoor and outdoor recreation, a small infirmary for emergency purposes, and the necessary farm and utility buildings. All construction will be substantial, fireproof, and of a type suited to the rural environment. As far as possible, native field stone will be used in the construction of buildings. Cottages will be simple in arrangement but comfortably equipped, and designed for all year round service.

Outdoor recreation is, of course, to be fully developed and the site is particularly well adapted to this end. There is ample space for golf, tennis, baseball and other summer field sports, and the lake affords every opportunity for boating, bathing, and fishing. Winter sports, such as snow shoeing, skiing, coasting, skating, etc., will be provided for, and it is hoped that such winter sports may be made a feature of the recreation program. The club house, previously mentioned, will provide for indoor amusements of all kinds, summer and winter.

Preference Will Be Given to Workers

Believing that those who are doing the work of the world are chiefly in need of the kind of service planned, preference will be given in the selection of guests, to men and women of working age, that is, over sixteen and under forty-five. This does not mean that persons under sixteen or over forty-five will be excluded from the Valeria Home, but only that where preference is necessary, persons between these ages will have first opportunity.

From its study, the board of trustees is convinced that less opportunity for rest and recuperation is now offered to men than to women, in institutions already established, so an effort will be made to make the home as attractive to men as to women. It is hoped that men and women can be

The old-fashioned garden at the camp.

given full opportunity for frank companionship, and mutual enjoyment of outdoor life, under much the same conditions as are found in a well conducted club or hotel. No great difficulties are anticipated on this score, since the original condition laid down by Mr. Langeloth that guests shall be persons of "education and refinement," will be rigidly adhered to. It is realized that all educated persons are not refined, nor are all refined persons educated, but careful selection of guests on the basis of character will, it is believed, accomplish the desired result.

It is not the intention of the board of trustees to limit the Valeria Home service to any special or professional group, or to those having a particular type of physical or mental disability. Each application for admission to the home will be decided on its merits after proper investigation. Convalescents, or those physically or mentally exhausted, who require only rest, good food, sunshine, fresh air, and recreation, and employment suited to their strength will be accepted, if otherwise eligible, but no person will be received who requires constant rest in bed or special medical or nursing supervision. No tuberculous patients will be received, nor persons suffering with any other disease in communicable form. Since some reasonable limitation of length of stay of guests is necessary, persons suffering with chronic or incurable diseases will be accepted only when the condition demands particularly the type of care which the Valeria Home offers, and then only for a limited period. Such special therapeutic devices as experience may prove to be useful will, no doubt, be provided, but chief reliance will be placed on Nature's therapeutic agents, applied in her own laboratory.

The beautiful maple trees in front of the present building.

Since it is expressly required in Mr. Langeloth's will that the home shall "as far as may be feasible, be self-supporting," guests will be required to pay weekly charges. Such charges will, however, be moderate, well within the means of the guest, and adjusted to suit each case. All guests, no matter what they pay, will have equal privileges, and, as far as possible, equal accommodations. A tentative maximum rate of twenty dollars a week has been approved by the board of trustees.

The firm of Delano and Aldrich and Charles H. Higgins of New York City, has been chosen by the board of trustees as architects, and construction will be started as soon as their plans have been approved. It is expected that some at least of the buildings will be ready for occupancy in the spring of 1922. In the meantime, however, the present Valeria Home Summer Camp will be continued, although plans for the work of the Summer Camp of 1921 have not yet been worked out in detail. It is probable, however, that the work will be confined, in the coming year, as during the present year, to providing rest and convalescent care for business and professional women. On the completion of the larger institution, the Summer Camp will be used as an auxiliary service under the same management.

THE PAY-PATIENT ACT IN OHIO

A report has just been made of the amount of money which has been collected by the state of Ohio since the pay-patient act became effective in 1910. The total amount is $3,659,415.20. Receipts for 1919 were $606,114.12, distributed as follows: for the care of the feeble-minded, $305,071.40; Mount Vernon Sanatorium, $9,351.36; all other receipts, $291,691.36. For the care of the feeble-minded, individuals paid $20,775.84, and the counties paid $284,295.56. At present the collection of the fund is under the Associated Charities, but the next legislature will probably consider changing the measure so as to have the work under the direction of the State Board of Administration.

BETTER FINANCIAL SUPPORT FOR HOSPITALS

By MR. J. J. BANFIELD, Member of the Board of Directors, General Hospital, Vancouver, B. C.

Finances in the hospitals today are not keeping pace with the increased cost of service demanded. As efficiency cannot be impaired, the only solution is to find a more substantial revenue. Establishing machinery for keeping the community in good health is one of the obligations of the state. As this fact is realized the upkeep of hospitals comes more and more to be recognized as a responsibility of the state, which can no longer remain dependent upon endowment or charity, or both.

A possible solution of the difficulty is the levying of a hospital tax, which would distribute the burden of hospital cost in a more equitable way than it is at present.

THE study of our hospital problems today is not only interesting, but indeed intricate, affording very extensive scope for deep thinking and clear vision. Analysis of the situation the world over, reveals the fact that present policies of efficiency and financing must be reorganized. Finances are not keeping pace with the increased cost of efficient service as demanded by the populace, a service much superior to that of ten years ago. Hospitals today, indeed, are recognized as a most valuable asset in the community and must produce results regarded as efficient. No longer will good old philanthropy meet our needs, and a more substantial revenue basis must be found immediately. We cannot allow efficiency to wane; our hospitals must have experts in every line. They must have highly specialized diagnostic and treatment facilities, and all that is necessary to assist in restoring our people quickly to productive capacity and a self-supporting status. Out of the chaotic state of hospital finances at present some concrete scheme must be evolved to provide adequate means of giving every patient, whether pay, part pay, or charity, expert care. This care must include every possible means for good diagnosis and treatment—either special or ordinary, as needed.

Obligation of the Patient and the Hospital

There are three parties to be considered—the patient, the hospital, and the state. These are closely interrelated and interdependent one on the other, and each have certain obligations to meet. The patient's obligation is the simplest, and is usually fulfilled more or less naturally, inasmuch as he must submit passively to the hospital and doctor for treatment, and must have confidence in them. The present system which prevails, to a certain extent, holds him responsible for paying his hospital bill. The hospital's obligation is to provide this patient with a service that will bring him back to the best physical condition possible in as short a time as it can be accomplished.

Finally, we come to the obligation of the state, which is not yet fully realized as such. The state must supply the funds, or the organization for getting them, for establishing such machinery as will give good health to the community. This obligation is what concerns us, to a great extent today. The state today recognizes the value of the individual to the community from a productive standpoint; while the individual does not exist for the state, there is a recognized duty or obligation of the individual to the state, and the state to the individual, particularly along health lines. The state must extend its support to the preservation of public health, and so enhance the value of the individual both to himself and to the community, since his productive ability is in direct ratio to his health. Those who are interested in hospitals notice a great change in sentiment towards these institutions in the past few years. There is more community interest and less destructive criticism, and it is generally considered that hospitals cannot carry on their work effectively if they have to depend for support on endowments or charity. They must be financed in an organized way so that each individual member of the community will contribute to their support.

The hospital has several functions to perform, which might be enumerated as follows: first, remedial: involving the cure or relief of patients; secondly, educational: including the training of doctors, nurses, attendants, and orderlies; thirdly, preventive: including the educating of the patient and the public to better health habits, and establishing various laboratories and other facilities for preventing sickness; fourthly, scientific: including investigation, research, and the contribution of knowledge of medical science.

Thus it is seen that the hospital of today must contribute a great deal to the national life of our country.

Remedial Function

In the care of the sick the hospital must have various departments, all manned by experts, and provided with the best type of equipment obtain-

able. Now we find that such facilities are accessible to and used mostly by two classes—the very wealthy, and the very poor; the wealthy because they have the money to avail themselves of the opportunity, the poor because they receive assistance from the state or some philanthropic organization. But there is a worthy self-respecting class between these two, whom we cannot disregard. They represent the mass of taxpayers, and, in many instances, the financial demands on this class being greater than they can bear, their medical requirements are neglected. This may often mean loss of time to the breadwinner, or the impairment of his children's health. A solution for such a condition may be found by making this care free to all. Every citizen should have the right to an efficient diagnosis and proper treatment including general ward care, provided free of charge so far as the hospital is concerned. Anything in the way of luxuries should be provided by the patient himself. Such an arrangement would mean the prevention of disease, and a great reduction in life wastage. It would not only lessen future hospital work, but other state activities, which are now maintained at great cost. Therefore, let us have all the facilities of a Class A hospital and have them accessible to everyone.

Educational and Preventive Functions

Another task of the hospital today is educational. It must help to equip doctors for the best service, add to the fund of medical knowledge, and train nurses, attendants, and orderlies. By acting as a training centre for all these useful classes of citizens, the hospital fulfills one of its important obligations. There are today many advocates of preventive medicine, and there are many ways in which it has been used. The hospital can give practical demonstration of some of these ways, and thus educate the patient and the public. Indeed, the institution should stand in the community for the dissemination of the health gospel. The social worker and the welfare nurse teach the people in their own homes how to live and how to keep well. The hospital laboratory with its health section safeguards the community against epidemics. In several ways, therefore, the hospital enters this great field of preventive medicine so interesting to the whole world.

Scientific Function

Finally, the hospital is the great laboratory research for medical science, where better means of diagnosis and treatment are discovered or worked out. Medical science is today far from being complete, and we know of various diseases that are yet far from being conquered. The hospital affords wonderful opportunities whereby with scientific observations and tests much can be adduced, and in so doing, the institution is not alone serving the community, but the world at large.

State Aid in British Columbia

In order to make the arguments in this paper more concrete and more comprehensive, we trust that you will pardon specific reference to our own province of British Columbia. There is no doubt that possibly conditions now existing in the province of British Columbia are similar to those in other provinces of Canada and states of the Union, and believing this to be true, specific reference to our own province may be helpful in the presentation of this subject. Throughout our province there are great financial demands on the government and municipalities for hospital purposes, but, though the amounts are large in some cases, they are not sufficient. The support from the government to the hospitals of the province today is based on an estimate of per capita grant on a sliding scale, running anywhere from forty-five cents to one dollar a day.

The larger hospitals offering the best equipment and service and having a great many more days than the smaller ones, are, therefore, securing less *per diem* than the smaller hospitals. In other words, large hospitals, offering superior equipment and service, are apparently penalized for doing good work, and are losing money on every patient. The large amount of non-pay work, in many instances, produces every month a deficit.

The individual being the most valuable asset of the state, financial requirements for his betterment should come first. At present, however, the state does not place the individual's welfare first, for it does not contribute sufficient per day to maintain a public ward patient.

Hospital Tax Proposed

For some time negotiations have been carried on with the government of our province concerning the broadening of taxation, and the last two or three years it has been considered very seriously. Today a health tax is being discussed, and, we, as hospital people, will propose a hospital tax which would distribute the burden of hospital cost much more equitably than it is at present. There would be no extra burden placed on the government, it would merely enact the legislation for the tax. In our province there would be little opposition to the scheme of a hospital tax built on a budget, the basis to be a *per diem* cost per patient, including the cost of diagnosis, board, nursing, special or ordinary treatment, with a general ward service. Such a tax would meet our

requirements for hospital maintenance, and would insure to the individual personal care in a public ward, or if he desired different accommodation, would be placed to his credit. In order that the state may accomplish the greatest good, it should thus assume all financial responsibility in connection with the maintenance of hospitals. It can do this by placing a direct tax on the public for that purpose—a tax say of six dollars a year to be exacted from all persons whose yearly income is six hundred dollars or over. The necessary expenditure for buildings and equipment should be the responsibility of the municipalities so that automatically the municipalities would become the owners of the buildings, and would keep completely in touch with all affairs of business connected therewith. Let us suppose the province will have this year approximately 600,000 days' treatment, at an estimated cost of $3.00 per day, or $1,800,000. Estimating our population at the present time and considering the recent increases, we are safe in saying that fully 300,000, between the ages of eighteen and fifty, should be taxable for this $6.00 per year. There is no better type of health insurance, from a hospital standpoint, than such a scheme as this.

Speaking for the Vancouver General Hospital, with which I am connected, last year our non-pay work amounted to over $150,000, while the great increase in wages, cost of foodstuffs, and supplies also added to our expenses. Hospitals, like schools, are justly a state charge, and to meet this charge it is fair and reasonable that all citizens should contribute. Indeed, hospital trustees and directors would welcome the inauguration of a tax to provide the revenue to carry on their work efficiently. At the present time, no doubt, the cost of providing for the sick is excessive and the provision inadequate. We know that a large number of our hospitals in this province are not equipped with the necessary facilities. Others have such facilities, but their charges are of necessity high, and the greater number of patients cannot afford to take advantage of them. Therefore we find that such special advantages belong only to the two classes of people already mentioned, the very rich and the very poor. Many persons may forego some test which might materially enlighten the doctor on the diagnosis, and possibly avoid an operation, or even save a life. Many such instances can be quoted from any hospital. The ultimate result is that the patient probably suffers from a more protracted and complicated illness. When we scan the development of medical science during the past four years, and follow our soldiers from time of enlistment until civil re-establishment, we find the highest grade of efficiency in all our medical service. This was due to the accessibility of all the special facilities, whether diagnostic, curative or preventive. The medical record of this war is unsurpassed in the world, and we could do well in our civilian days of peace to follow the army principle.

Location of Hospitals

In this province we have approximately one hundred hospitals, of which possibly seventy are receiving government support. The location of the hospitals is usually influenced by various factors, such as the population of that section, the industries located there, and the transportation facilities. These, of course, are essential and important factors, but we find that there is no definite plan of service laid down for the institutions. While every outlying hospital should be able to cope with all emergencies or accidents, medical cases and maternity cases, there are a great number of cases which should be transported to the larger centre, where there is concentration of facilities and specialists. Adequate provision for such cases is seldom made.

However, I think there is one disease that should be considered more from a national than a provincial standpoint, and this is tuberculosis. The charges on our provincial and municipal governments to maintain hospitals for tuberculosis should be removed from them to the Dominion Government, and these hospitals placed in the localities most favorable to the treatment of this disease. We are told by medical science that climatic conditions play a large part in the treatment of tuberculosis, and it seems only right that our whole Dominion should be considered, as to where the best place is for such institutions. This naturally might bring it beyond the confines of the patient's own province.

State Inspection of Hospitals Important

The government of our province is spending annually over $1,500,000 in connection with health institutions, and we are glad to see that it is checking up the measure of service and results obtained from this expenditure, through a hospital inspector recently appointed. This inspection is very important and should be done intensively—much in the same way that our schools are inspected. Inspection not only checks up inefficiency, but brings enlightenment to many hospitals struggling with problems.

Some objections will arise, no doubt, to this scheme of a hospital tax, but I think they are all readily answered. It has been stated from several quarters that such an arrangement would mean a very great influx into the hospitals, requiring a rapid extension of facilities. In our province we have disproved this objection already

in connection with the Workmen's Compensation Act. We find there has been no trouble whatsoever with patients over-anxious to come to the hospital or remain any longer than necessary. This can all be regulated by organization; indeed, in our own institution, where we have over one thousand patients, a check-up is made every day in the year to see who should be discharged, and there has been no trouble in keeping our wards clear of unnecessary patients. The question of revenue for capital expenditure and new buildings, would have to be delegated to the municipality, each one making provision for its own extension of facilities.

Standardization and Economy Needed

There is, indeed, need for standardization today. Hospital equipment and supplies are exceedingly diversified. What efficiency could be gained and money saved if we would all agree to a uniform service and uniform equipment in our institutions. All hospital work has in view the same purpose, and by standardizing their service the hospitals could guarantee to the patients that this service would be carried out. It is most difficult to have every hospital equipped for everything, but all hospitals should be able to handle all medical, obstetrical, and a greater portion of the surgical cases. Where the work on a surgical case is of such major character as to require special equipment and the service of specialists, the case should be handled as suggested in a larger center.

Summary of Recommendations

The statistics of this province show that one person out of every ten goes to the hospital during the year for treatment and will stay in the hospital on the average of from one to twenty days. Such being the case, the scope for this work, along the lines we are discussing, is sufficient to warrant the best methods in carrying it out. Therefore, I would ask for a better financial basis for our institutions; a more efficient and more accessible medical service to our patients; a better hospital organization; greater economy both in finances and in energy, through consolidation and cooperation; better hospital research, both along technical and administrative lines; and more extensive hospital scrutiny and inspection throughout the province.

I would recommend: first, that we have standardized hospital service for each community, to be decided upon according to the needs of the hospital area selected; second, that we make such service free to every patient so far as the general ward is concerned, with all possible means for diagnosis and proper treatment; third, that we put all hospitals on a reasonable and business-like basis; fourth, that a hospital commission for the province be appointed; fifth, that a director of hospitals be appointed to have inspection over all hospitals, and be the executive head responsible to the hospital commission. The boards of trustees and directors would remain as at present.

This would mean that there would be no disturbance in the local management of our various hospitals, but they, through their executive head or superintendent, would be responsible to the commission through the executive officer of the province. The business director or manager would have oversight of all the financial affairs of our hospitals. The director of medical affairs would inspect the quality of the work done and the efficiency of the medical service throughout. The director of nursing affairs would likewise control all nursing matters. In this way there would be no chance for inefficiency. These three officers would be responsible to the chief executive officer, who, in turn, would be responsible to the hospital commission.

In conclusion, let me say I have endeavored to place before you, though very inadequately, a few of the salient facts which are known to us all throughout the provinces of Canada and the states of the Union, and I have tried to make a few suggestions as a basis, possibly for future action or change. A scheme might be deduced from these remarks which would relieve our financial troubles, increase the efficiency of all our hospitals, and finally be a great economic factor in the administration of a public service.

POSSIBLE TO PROLONG HUMAN LIFE

It is possible actually to prolong human life by increased attention to matters of public health. This is shown by figures in several countries. The average duration of life in India is less than twenty-five years, in Massachusetts forty-five years, in Denmark fifty-one and seven-tenths years, in England and Wales forty-five and nine-tenths years. In Geneva, where records are available for the past three centuries, the sixteenth century shows an average of twenty-one and two tenths years, the seventeenth is twenty-five and seven-tenths years, the eighteenth thirty-three and six-tenths, and the nineteenth thirty-nine and seven-tenths years. Thus it is shown that definite conditions alter the length of human life.

GETTING INFORMATION ABOUT PATIENTS

Not infrequently it is rather difficult to obtain information as to why patients have been taken to a psychopathic hospital, but in Chicago this is not true. However, the Chicago State Hospital found that there was often a delay of several weeks before the information could be obtained, and this seriously held up the case. So a scheme was devised by which the chief of social service spends one day, usually the day the patients are presented before the court, at the psychopathic hospital, and in this way the information is often obtained on the day following the admission of the patient.

BETTERING THE FOOD SERVICE IN HOSPITALS*

By HERBERT O. COLLINS, M.D., St. Paul, Minn.

THE purchase, storage, preparation, and serving of the food in a hospital presents difficult and complicated problems. Poor service in this line may be due to lack of interest and understanding on the part of those responsible for it; poor or insufficient equipment; badly planned kitchens, pantries, or store rooms; poor marketing facilities; or incompetent or badly organized help. Food service is too often left to the control of insufficiently trained or indifferent persons, who naturally fall into the habit of doing things the "easy" way, if not constantly and intelligently supervised.

There is no department of the hospital in which results depend more upon intelligent study and good executive work than in the dietetics department. Upon the proper handling of this work depends the solution of many important problems, including those of economy or waste, pleased or displeased patients, an enthusiastic staff or its reverse, and contented or discontented employees.

The preparation and serving of the food in a hospital differs from that in a hotel or restaurant, chiefly in that in a hospital it is necessary to prepare for a greater variety of needs. Every gradation, from the highly specialized diet in the metabolism wards, to that more suitable to the needs of the fireman who shovels tons of coal into the furnaces daily, must be taken into consideration.

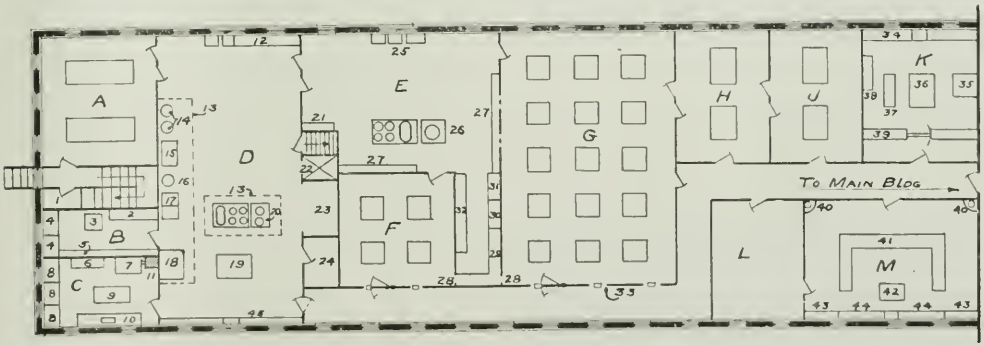
We cannot afford to close our eyes to the fact that, to most of us, properly cooked meals, nicely served, means more than rightly selected "food values." When there are complaints from either our patients or employees, scientifically worked out tables, showing the number of calories contained in each improperly prepared or poorly served meal, will not always be convincing.

Importance of Kitchen's Location Emphasized

The problem of planning and equipping a hospital kitchen will vary considerably with both the size of the hospital and the class of patients it cares for. In a small hospital it is often best to locate the kitchen on the first floor of the building, preferably in a wing which can be fairly well shut off from the rest of the building. In the very large institutions a separate building, connected with the main hospital buildings by suitable passage-ways, will often be found preferable. The class of patients to be cared for, especially as to whether they are to be public or private, children or adults, will need to be considered in the selection of the equipment.

Though all the food served in a hospital is not

*This is the first of a series of articles on hospital food service which will appear in THE MODERN HOSPITAL.



Plan of a kitchen and dining room unit, for a one hundred bed hospital.

A. Employees' dining room. B. Cook's supply room. C. Pastry bakery (including desserts). D. General kitchen. E. Cafeterin. F. Interns' dining room. G. Pupil nurses' dining room. H. Staff nurses' dining room. J. Dining room for special nurses and night nurses. K. Special diet kitchen. L. Dietitian's office. M. Class room for teaching dietetics.

1. Women employees' coat room and toilet (men's toilet in basement). 2. Cook's refrigerator, (for emergency supplies and leftovers only; main cold-storage in connection with the main store room, not shown). 3. Meat block. 4. Bins. 5. Shelving or cupboard. 6. Pastry rack, (on wheels). 7. Oven. 8. Bins. 9. Work table. 10. Counter, with sink. 11. Flue. 12. Shallow and deep sinks for washing utensils, with counter; racks or shelving above. 13. Hoods over range, kettles, and steam table. 14. Jacketed kettles. 15. Vegetable steamer. 16. Potato peeler. 17. Deep sink and counter, for preparing vegetables. 18. Range. 19. Cook's work table, (sauce-pan rack above). 20. Steam table and coffee urn (dish warmer below). 21. Cafeterin refrigerator. 22. Freight elevator to basement. 23. Storage alcove for food cars. 24. Mops, brooms, and cleaning materials. 25. Toaster, pan-cake griddle, and hot plate. 26. Steam table and coffee urn, (cup-warmer beneath). 27. Serving counters, to nurses' and interns' dining rooms. 28. Pass-windows for soiled dishes. 29. Soiled dish counter, for the nurses' and interns' dishes only. (Patients' dishes to be washed elsewhere). 30. Dish-washing sinks or machine. 31. Clean dish counter. 32. Dish cupboard. 33. Rail or low partition, giving light and ventilation to dining rooms. 34. Counter, with sink. 35. Range. 36. Work table (wood top). 37. Tray rack (on wheels). 38. Refrigerator. 39. Counter, with gate. 40. Lavatories. 41. Counter for students in dietetics. 42. Demonstration table. 43. Cupboards or shelving. 44-45. Counters, with sinks.

Counter and kitchen of a cafeteria suitable for a small hospital.

cooked in the general kitchen, the major portion is, and the work of feeding the hospital is centralized there. As a rule, the meats and coarser vegetables, as well as the meals of the nurses, interns, and employees, are cooked in this kitchen. Its proper location naturally becomes a matter of importance and it should be located with reference to easy delivery of supplies, quick and easy delivery of cooked food to wards and rooms, and to the nurses', interns', and employees' dining rooms, provided these dining rooms are to be served from the general kitchen. It must be conveniently located for supervision, with proper relation to the special diet kitchen, store room, and the cold storage rooms. It should also be capable of being well lighted and ventilated, without disseminating the odors of cooking throughout the hospital.

It too often happens that not enough study is devoted to these questions by architects, and others interested in planning the hospital buildings. The result is that we frequently find the general kitchen placed in some inconvenient location, perhaps in the basement, where it is difficult to give it its proper supervision or to properly light or ventilate it, and from which the delivery of food is so inconvenient that meals reach the patients' bedsides in a cold and unpalatable condition. From kitchens so placed the odor of food often permeates the whole hospital atmosphere, a condition especially to be avoided in a hospital, in which the appetites of those to be fed are most easily affected.

The cafeteria dining room adjacent to the service counter shown above.

All the above requirements are not easily met, but much can be done along these lines by a little study and planning. The basement kitchen is especially to be avoided, as having nothing in its favor, with the possible exception of economy in the original construction of the hospital. This will seldom be found sufficient to justify disregard of the disadvantages, and the basement space can usually be used to better advantage for other purposes. The question will generally resolve itself into a choice of location on the first floor, preferably in a wing that can be pretty completely shut off from the main building, and the top floor, for the smaller and medium sized hospitals. For the very large hospital, a kitchen unit in a separate building will merit consideration, for it has many advantages.

Each of these locations has its enthusiastic advocates among hospital executives, and each has its own advantages and disadvantages. The first floor location has in its favor accessibility, convenience to store rooms, easy supervision, and quicker delivery of food to the patients, and to the various dining rooms. These are all important points in its favor, and should be fully and carefully considered by those who are planning new kitchens. On the other hand, a kitchen here is more difficult to light and ventilate, and the odors of cooking will escape at times to other parts of the building, and the noise which is unavoidable in the handling of utensils, will often disturb the patients. Its very accessibility, while a point in its favor, will also be found something of a disadvantage, for employees and trades people having no duties in the kitchen, should find nothing to encourage their entering there at any time. They not only interfere with the work, but supplies have, at times, a tendency to disappear when the kitchen is too handy of access to those not connected with it.

To overcome some of the objections to a ground floor location, the kitchen is sometimes placed on the top floor, or even in a deckhouse on the roof. Advocates of this location claim that it reduces the liability of the odors of the cooking getting to the patients' rooms, and that it can be better lighted and ventilated. While such arguments are

sound, it will probably be found that the disadvantages of this location outweigh the advantages, and the roof or top floor kitchen is not as popular today, either in hospitals or hotels, as it was a few years ago. Practical experience has demonstrated that it greatly increases the labor of delivering supplies to the kitchen, and returning ashes, garbage and other refuse from it. In addition, if the dining rooms are placed on the same floor, there is confusion and loss of time on the part of nurses and others of the hospital personnel, who are compelled to use the elevators three times a day to reach their meals. The same difficulty has been found in transporting the patients' food from the kitchen to the wards, the additional delay, caused by the necessity of bringing the food cars down from the top floor, resulting in more poorly served trays and colder food. Part of the difficulty can be overcome by locating the dining rooms on the first floor and using dumb-waiter service to connect them with the kitchens. But this will seldom prove satisfactory, as delays are sure to occur at times, and dumb-waiters have a decided tendency to get out of order at critical moments.

Much, however, depends on the general plan of the hospital, and the location of the general kitchen will need to be considered in conjunction with the whole hospital plan, with due regard to the advantages and objections in connection with each location.

Size of the Kitchen Should be Studied

The size of the general kitchen will naturally depend on the size of the hospital, and will also be affected by the work that is to be done there. It will often be found to be advantageous to have a special room connected with the kitchen for the storage and preparation of vegetables, and one for pastry baking, if there is no bakery in the hospital. A small room, especially designed for the washing and storing of utensils, opening directly off the kitchen, or in a distinctly separated alcove of it, will be a great convenience, if it can be obtained. Much space can be saved in the kitchen proper, by removing such operations from its floor. On the other hand, ample floor space must be reserved for the necessary equipment, for the loading of food cars, etc., without causing inconvenient congestion or interfering with efficient work. It should also be borne in mind that when additional beds are added for patients, it is not always practical to enlarge the general kitchen to a corresponding extent, and its work suffers in consequence. It is important, therefore, that ample space be provided for the immediate needs when the hospital is built, and that a limited amount of future growth be anticipated. While too small a general kitchen will always be regretted, it is also possible to go to the other extreme and have too large an area of unused floor space, causing many unnecessary steps.

An efficiently arranged diet kitchen.

The problem of delivering hot food to the bedside of the patient is one of the most perplexing in connection with the food service, and will be further discussed later. But, since the first step in this must be taken in the kitchen, it is important to see that this department is supplied with the proper steam tables and dish warming ovens, or with other facilities for keeping the food hot while waiting for transportation or serving.

If a steam table is used it should be placed where it can be easily reached from the range, and also from the kettles and steamer in which the vegetables are cooked. It should also be located so that food cars can be conveniently loaded from it. There is some advantage in having at least a portion of the steam table especially constructed, so that the food containers belonging to the food cars fit into it, and can be filled and kept hot till ready for transportation. This saves one handling of the food.

The main kitchen of the Chicago Lying-In Hospital, showing compact yet efficient arrangement of equipment.

A cafeteria suitable for a large hospital.

Supplies for the kitchen are best kept in stock in the general store room of the hospital, and issued to the kitchen in comparatively small quantities, as needed. This prevents waste, and most supplies can be better cared for in a store room or root cellar, than in the kitchen itself. There should, however, be provision in the vegetable room of the kitchen for the storage of enough of the coarser vegetables to make daily delivery unnecessary. A reasonable stock of small canned goods may also be carried in the cook's supply room for emergency use, and proper provision for their care should be made.

The plan of the general kitchen will be somewhat affected by the method adopted for the serving of the food to the nurses, interns and employees. The diagram on page 117 illustrates a suggested floor plan of a kitchen and dining room unit, suitable for a hospital of about one hundred beds, in which pupil nurses and interns and such of the hospital officers as take their meals at the hospital are served by the cafeteria system. The help is served in the employees' dining room, "family style." The advantages and disadvantages of the cafeteria system will be more fully discussed in a subsequent article.

Food cars, carrying food to the wards and patients' rooms would, in this plan, be loaded from the steam table in the general kitchen, lowered to the basement on the freight elevator, passing through a basement corridor to the proper elevators in the main building, and thence to the ward diet kitchens. Their passage through the congested corridors leading past the dining rooms is thus avoided, and the slight time used in lowering them to the basement level will be more than made up by the clear road they will gain. If, however, the plan of the building permits, there is some advantage in providing a direct passage from the kitchen to the elevators going to the diet kitchens on the wards, without using the basement. But food cars should be routed to keep them out of congested or public corridors as much as possible.

Special Features of Construction Important

Whenever it is possible the kitchen should have windows on at least two sides, preferably opposite, to insure proper lighting and ventilation. If windows can be obtained on three sides it is still better. Sky-lights should be avoided when possible, as being of little use except for ventilation; they become hot from the strong sunlight, and are liable to cause condensation of the moist air on the cold glass and consequent annoying dripping. Ventilating fans should also be avoided, if designed to draw the air into the room. But one or more good sized exhaust fans properly placed will be found invaluable in ridding the kitchen of steam and odors, when necessary. If such fans can be connected with the hoods over the range, the steam table, and the steam kettles, and the vegetable steamer, they will be found a source of great satisfaction.

The artificial lighting should be ample, as the kitchen will often be used when it is dark, in the evening and in the early morning. The lights should be so placed as to properly illuminate the room without throwing annoying shadows upon the work. They should be located so as to light the range, the cook's table, the steam table, and all machines which are liable to be used when artificial light is needed.

Too much care can hardly be given to the selection of plumbing fixtures, and to their installation. All fixtures, when possible, should be set some distance from the wall, in order to prevent harboring vermin in the cracks behind them, and should be installed in such a manner that easy access can be had to the pipes and other parts for repair. Suitable valves should be placed upon the supply pipes running to each individual fixture, so that the water can be shut off while repairs are being made, without interfering with the rest of the building. It is a good plan to have all transverse pipes installed about two or three feet from the floor. All water faucets should be of some type easily and quickly repaired by the hospital mechanics.

It will be found of great advantage to cover the wall back of each sink, as well as of all other fixtures supplied with either water or steam, with tile, marble, slate, or other impervious material, set flush with the plaster, unless the entire room is wainscoted with such material. The plumbing should be of the open type, i. e., with all possible pipes exposed for easy repair. Pipes made of metal, which require much polishing to keep them

in presentable condition will be found a source of much avoidable work, annoyance, and expense. Iron pipes, covered with an aluminum bronze, or a good enamel of a color to match the walls, are very satisfactory, and less expensive both for installation and care.

Counter and table tops may be made of wood, well seasoned and so put together that they may be guaranteed not to warp, or of steel, marble, slate, or soapstone. Wooden counters or table tops, covered with sheet metal, are not durable, as the metal has a tendency to buckle with the shrinkage of the wood. The sectional maple tops have been found preferable for the wood topped tables, but tables with solid steel tops are desirable for certain purposes, especially for use near the range, where hot utensils are likely to be placed on them. Either slate or soapstone makes a desirable counter top, or the sectional maple may be used here also.

Tile Probably the Best Floor Material

There is almost as much latitude in the selection of the best material for the kitchen floor as for the floors of the other parts of the hospital. Linoleum will seldom prove satisfactory, owing to the difficulty of getting water-tight joints. Terrazo is liked by many, and looks well when new, but it is porous, and is almost certain to develop cracks which are not easily repaired. Slate, set in large blocks, (ten or twelve inches square) makes a very desirable floor for a kitchen, and has the advantage of being easily cleaned and repaired. Objections to it are found in its black color, and that it is likely to become slightly slippery when wet. Probably the best floor is made of tile. This may be obtained in a grey color which is very attractive. The surface should be smooth, without any suspicion of glaze, and yet have enough grit to prevent it from becoming slippery. But the cost of tile will be a valid objection to it in many hospitals. The red quarry tile is liked by many people, and is cheaper than that referred to above. It should be set with closed joints.

If economy in the selection of a floor material for the kitchen is necessary, a very good and sanitary floor may be obtained by using cement, if it is properly laid. As it is usually laid, however, it will not be satisfactory. Under the common method, the foundation or "grouting" is prepared for the finishing surface simply by sweeping and washing it off, sometimes with a small amount of acid in the water, to cut and freshen the surface. When prepared in this way the surface coat is very liable to crack and separate from the foundation. A better method is to insist

A class room for teaching dietetics to nurses.

that the surface of the grouting be gone over with an air chisel, or some similar tool, so as to chip off and renew the entire surface before the finishing coat is laid. If then the finishing coat is made of equal parts of sand and cement, and laid about an inch and a half thick, troweled smooth, a good and lasting floor will be obtained. The surface should be further finished with one of the reliable cement hardeners, and can finally be made attractive by painting with a good cement paint, if desired. The paint will gradually wear off in spots, requiring renewal; but even after this has occurred it will be found that the surface of the floor will remain smooth, hard, and sanitary. Such a floor is really very satisfactory, and much cheaper than the others mentioned.

Kitchen walls should have all corners rounded, and should be so built as to be easily cleaned and not liable to chip and scar. If the plaster is finished with a surface of Keene's Cement it can be rubbed till it is almost as hard and smooth as glass, and this, when finished with a good enamel, makes a cleanable and durable wall. If possible the entire room should be wainscoted, preferably with tile, set flush with the plaster in order that no edge may be left to collect dust. The base should have a cove where it joins the floor.

All doors and door frames should be protected from marring by trucks and in other ways, by metal plates extending at least two feet from the floor. Hardware should be of a substantial type, preferably with a finish which will look well without requiring polishing. All doors to supply rooms, as well as to the kitchen itself, should be equipped with good locks.

Health is free—recreation and a contented, happy disposition will help to get it. The whole out-of-doors is charged with oxygen—it is all yours.

PREVENTING HOSPITAL FIRES*

By H. W. FORSTER, Boston, Mass.

There are certain things which can be done by every hospital to lessen the fire hazard, the seriousness of which one can hardly realize. Proper fire signaling systems, with public alarm connections, should be installed. Fire drills should be held at least once a month. The only remedies for the type of frame buildings which are very numerous are radical structural changes, or the installation of automatic sprinklers, or both. The radical changes should include subdivision of buildings by fire walls or partitions, enclosure of stairways, elevator shafts, heating apparatus, etc., by fire-resisting material, the protection of basement ceilings by metal lath and plaster, and elimination of shingle roofs.

Public Alarm Connections.—Wherever public protection is available for hospitals, a fire alarm box should be installed at the institution so that the department can be summoned without delay. Even where the institution is located some distance outside the range of public protection, arrangements can generally be made to have the department respond in case of fire.

Private Alarm Systems.—If the institution is of considerable size, and especially if a trained fire brigade is organized, a private fire alarm system should be provided with boxes located at advantageous points throughout the property, and with gongs so placed as to be heard by officials and members of the brigade. Certain types of private fire alarm systems can be connected to the nearest city box so that the operation of any one of the private boxes will also send the alarm to the city department. When drills are held, the connection to the city box can be temporarily cut out.

It should be remembered that the most elaborate protective equipment is of little avail if notification of fire is not given promptly. Some of the most disastrous fires in institutional buildings have resulted from delay in sending in alarm. In an orphan asylum fire at Texas City, Texas, six sisters and three children were killed and three servants were badly injured. One hundred little children were in the building at the time of fire, and in the excitement in getting these out, no one thought to send in the fire alarm. A butcher, two blocks distant, finally turned in the alarm, but when the firemen arrived, there was little that they could do beyond holding life nets.

Telephones.—Because of the possibility of error and delay, the telephone method of sending an alarm is unreliable.

Sprinkler Alarms.—Where automatic sprinkler systems are installed, water flow alarms which operate automatically when a sprinkler head opens can be arranged to serve all fire alarm purposes. The great advantage of such a system when properly installed, is that the alarm is given and water is poured upon the fire simultaneously at the very start.

Thermostats.—Where automatic sprinklers are not provided, thermostats or automatic alarm systems, operated by the rise of temperature when fire starts, can be employed to give similar alarm service without, of course, the extinguisher feature. Prompt notification of fire outbreak is of importance second only to automatic extinguishment.

Notifying Inmates.—The necessity of notifying inmates when fire is discovered will depend largely upon the location and seriousness of the fire and upon the character of the inmates. Sick, nervous, or feeble-minded people should not be alarmed unless there is real danger, but the danger line should be clearly understood and there should be no delay when this is reached. For such persons, the alarm can be given by use of soft-tone bells or lights, and the latter can be used to advantage with deaf inmates. Boxes and gongs in each individual building should be on separate circuits arranged so that when an alarm is turned in from a certain building, all occupants of that building, as well as officials and members of the fire brigade where they are normally to be found, will be notified without alarming the inmates in other buildings.

Fire Drills.—Fire drills are not usually required in institutional buildings, either by law, local ordinances, or institutional rules.

In institutional buildings a large number of the inmates are confined to a certain portion of a certain building. At time of fire their only thought is to get out of the building by the usual way. If this is cut off by smoke, flames, locks, or other obstructions, they are very apt to become panic stricken. The majority of inmates are physically or mentally below normal. Many of them are helpless. Even where this is the case it is often true that throughout the night there is but one attendant to fifty or seventy-five inmates.

Fire drills should be held at least once each

*Sixth and last installment of an article by Mr. H. W. Forster, reprinted by special permission from the April, 1920, Quarterly of the American Fire Protection Association.

month in every institutional building. The details of the drill will necessarily vary with the type of institution. Where the mental and physical conditions of the inmates allow it, they should be instructed regarding action to be taken at time of fire alarm and should be drilled to vacate buildings in an orderly manner without special supervision. Where inmates are mentally defective, the prime need is for cool and competent supervision. With the sick or crippled, physical assistance and reassurance are needed.

The details of fire drills should be carefully worked out and the proper arrangements made to meet all possible emergencies. Ultimately, drills should be held at various times of day and night, and, in certain types of institutions, without notice.

Fire Spread

Most institutional buildings are of highly combustible construction and present large areas with absolutely no provision for checking spread of smoke and fire, which can communicate between floors by means of open stairways, elevator shafts, dumb waiters, clothes and rubbish chutes, and various other openings. The ordinary wood joisted institutional building is a potential furnace, with masses of wood, dry as tinder, enclosed in oven-like walls. The speed with which fire spreads in such buildings is often appalling. Brick or stone walls add practically nothing to the safety of a building with a wooden interior, as has been frequently evidenced.

New Construction.—New institutional buildings should be of fire-resistive construction throughout, and where possible, of but one story in height. Buildings should be separated either by standard fire walls or by at least fifty feet of open space. All floors adjoining buildings should be connected by fire-resistive corridors or by openings through fire walls protected by standard fire doors. In rural communities the general use of one-story buildings is quite feasible, but in the larger cities, where land is scarce, it is necessary to build higher. Every effort, however, should be used to house the sick, the crippled, the blind, the deaf, the insane, and others wholly or partially helpless as close to the ground as possible.

Existing Buildings.—Over 90 per cent of existing institutional buildings are of frame or wood joisted construction. The need, therefore, is for immediate action toward the improvement of these buildings. An intelligent examination of even a limited number of institutional buildings will convince the most skeptical of the present danger.

One four-story wood-joisted building was found filled with blind children and their teachers. The only protection provided was inside hose, and the water pressure was insufficient to reach the upper floors. A paint shop was located in the basement and rubbish chutes from the basement communicated with upper floors.

A four-story, brick, wood-joisted hospital was found completely filled with bed-ridden patients. Two open stairways led from basement to top floor. All woodwork was old, dry, and heavily varnished. The only men found on the property were the engineer and a visiting doctor. The hospital was managed solely by women, many of whom were physically feeble. In case of serious fire on the lower floors, large loss of life was a foregone conclusion.

The only remedies for such conditions are radical structural changes, or the installation of automatic sprinklers, or a combination of both. It is criminal to place all dependence upon a few extinguishers or fire escapes.

The following type of structural improvements are of value in combustible buildings:

(a) Subdivision of buildings by means of standard fire walls or partitions.

(b) Enclosure of all floor openings such as stairways, elevator shafts, dumb waiters, rubbish and clothes chutes, etc., with fire-resistive partitions and doors.

(c) Construction of fire-resistive floor, walls, and ceiling about heating apparatus.

(d) Protection of entire basement ceiling by metal lath and plaster. This gives considerable protection against fire; sheet metal nailed to joists does not.

(e) Elimination of wooden shingle roofs.

Fire Walls and Partitions.—Sometimes in large buildings it is possible to make fairly effective fire walls of existing walls. Unnecessary openings can be bricked up, walls can be carried through the attic and roof, timbers which originally passed through walls can be cut off so as not to create continuous combustible channels through the walls, and necessary fire doors can be provided. Generally, if improvements of this kind are undertaken, it is possible to do the work in such a way that it will have distinct property saving value, and not merely give somewhat greater life protection.

In some combustible institutional buildings of large area the only proper treatment is to build one or more effective fire walls across the building. Some of the large public and private institutional buildings in the country are hundreds of feet long, the equivalent of five or six floor levels in height, and literally without any semblance of a fire stop either horizontally or vertically. Such

condition in a factory or mercantile property would be considered little short of an economic crime, and it certainly is quite as desirable that the same steps which would be taken in a business building be taken in a building housing hundreds of persons, many of whom are helpless.

Stairways and Elevator Shafts.—In existing buildings where it is not deemed advisable to provide standard fire towers and fire-resistive shafts for elevators, stairs and shafts should be properly enclosed. Expanded metal and plaster partitions, or metal and wired glass, generally are satisfactory for this purpose. The doors leading to the stairs should normally be kept closed and should not be too heavy.

Heating and Ventilating Systems.—Heating boilers should almost without exception be located in a fireproof room, if not in a detached building

The flues and ducts of heating and ventilating systems provide ready means for rapid spread of fire. Especially is this true where housekeeping is not of the best, as dust and lint are apt to collect in such places very rapidly. All flues and ducts should be of metal or other non-combustible material. Air ducts should never terminate at the attic floor level, but should be carried through the roof. Ducts, flues, and pipes of heating and ventilating systems should be kept clean at all times, and wherever these pass through floors or fire walls, they should be equipped with automatic dampers which, through the melting of a fusible link and the action of closing weights, will cut off the spread of any fire which occurs in or gets into them.

So widespread is the use of motor ambulances, trucks, and pleasure cars at institutional buildings, and so severe are the fire hazards involved, that special attention should be given to the provision of safe storage space. Wherever possible, garages should be isolated from main buildings and should always be of non-combustible construction. Where, as in congested districts of cities, it is necessary that garages adjoin main buildings, they should be of fire-resistive construction throughout, with no direct connection to main buildings. Adjoining buildings should be properly protected against exposure.

Shingle Roofs.—The biggest factor in preventing exposure fire from affecting institutional buildings is to eliminate wooden shingle or other combustible roofing. Shingle roofs are objectionable also because sparks or brands from the chimneys of the building itself may set fire to the roof. No existing shingle roof should be permitted to be repaired extensively with wooden shingles. Various approved forms of fire-resistive roofing materials, weighing about the same as wood shingles, may be installed without appreciable difference in cost.

Legislation, Inspection, and Instruction

Legislation.—But little legislation has thus far been enacted for the improvement of fire protection and safety of life in institutional buildings, and existing requirements are often made indefinite by the use of such terms as "sufficient," "proper," "ample," "necessary," and "suitable." This commonly places the responsibility for interpretation upon untrained persons, and among these there is much disagreement as to proper procedure. In the face of the opposition and differences of opinion encountered, it is exceedingly difficult for fire marshals, fire chiefs, or any others interested in the matter to secure proper enforcement of the laws.

A notable legislative effort toward protection of institutional buildings in one of the most progressive states requires that all such buildings "shall be equipped *either* with an automatic sprinkler system *or* with an automatic fire alarm system." This gives a choice between the best fire fighting system (which combines with it also alarm service) and purely automatic alarm service. Valuable though the latter is, there is no comparison possible between the two systems. In many cases the requirements of the law will be met by the installation of the automatic fire alarm system, purely because of the difference in cost.

One important need is for the establishment of standards for new buildings. This can be most easily and satisfactorily met by adopting the recommendations embodied in the building code of the National Board of Fire Underwriters, copies of which can be secured from that organization, at 76 William Street, New York. Standards must also be established for such matters as housekeeping, guarding of special hazards, egress facilities, fire drills, and extinguishing equipment. In the preparation of such standards the data available through the National Fire Protection Association will fill practically every need.

Many of the deficiencies in present legislation regarding protection in institutional buildings may be met by proper use of the authority vested in state and city fire marshals, fire chiefs, and other officials. If all such officials were to use this authority without fear or favor, for the best interest of the people, and were their decisions properly sustained by the law, much improvement could be made in a short time. Of special interest in this connection is the action of the Chicago Municipal Court and the Illinois Supreme Court in finding liable the Washington Home for neglecting to obey an order to install automatic

sprinklers. This was a home for inebriates accommodating over one hundred patients. The contention of the management was that the city ordinance which required the installation of automatic sprinklers was a violation of the Federal constitution. The courts ruled, however, that it was a reasonable exercise of police power, and the ordinance will be enforced.

Inspection.—Even where the best of conditions have been established, frequent inspections are necessary for their proper maintenance. Where conditions are poor, frequent inspections are even more necessary, in order that these hazards may be kept at a minimum. A chief engineer or other competent man at each institution should make inspections at least once a week covering at least the various up-keep matters presented in this article. In addition to such inspections there should be more detailed inspection, preferably twice a year, by expert fire prevention engineers. Members of the public fire department should also make frequent visits to institutions, in order that through knowledge of conditions they may be able effectively to handle any situation that may arise. Superintendents and doctors should also have fire protection in mind when making their regular rounds.

Watchman service should be provided at every institution, and each floor of each building, as well as the outside grounds, should be covered hourly by a watchman throughout the night. Such a man should be of a high type as regards character and ability, and should be carefully instructed regarding the proper action to be taken under any conditions which may arise. He should be well informed regarding fire hazards and the location and operation of fire alarms and fire equipment. Watchmen should follow a definite route in making their rounds and should register their movements on recording clocks. A detailed report of conditions should then be made out and delivered to the superintendent each morning.

Instruction.—All officials, doctors, nurses, attendants, and other employees at institutions should be carefully instructed regarding common fire hazards, the use of extinguishing equipment, and the method of sending in a fire alarm. Following fire drills, these matters should be discussed with all such persons, especial attention being given to the instruction of new employees.

Special Occupancies

Emergency, Acute, General, and Maternity Hospitals.—In these institutions the inmates are largely helpless but mentally alert, and every effort should therefore be made to prevent alarm or excitement among the inmates at time of fire. Fire alarm signals should be given by means of colored light, soft toned bells, or other special means.

The majority of inmates, being unable to walk, must be moved by nurses and attendants. To carry a stretcher or mattress requires at least two persons and takes considerable time. When stretchers are used, inmates must be handled twice, and especially in the case of operative patients, this is apt to result seriously. It is practically impossible to carry patients either in stretchers or on mattresses down fire escapes and difficult even on the easiest stairways. To pass through doorways takes considerable time. The following points therefore seem very important:

1. Patients should *not* be taken from their beds.
2. The beds, with the patients in them, should be wheeled horizontally through fire walls or fire-resistive corridors, or, in the case of isolated buildings, down ramps to the ground.

This leaves the stairs or fire escapes clear for the use of firemen. In all wards, the most helpless patients should be placed nearest the exits. Beds should have casters not less than four inches in diameter, those at one end of the bed being fixed and at the other of the swivel type. At time of fire or fire drill, the doctors, nurses, and attendants of the safety corps should wheel all beds to a place of safety. Under the worst conditions, each person should be able to wheel beds to safety at the rate of one every three minutes. Fire ramps, where necessary, may be built to connect porches already provided. A straight ramp from each ward is preferable, however.

Where for any reason it is necessary to use stretchers, a generous supply of these should be provided. They should be strong and light, should be kept at a conspicuous central location, and should be designated "*FOR USE AT TIME OF FIRE ONLY.*" They should be considered a part of the fire equipment and other stretchers should be used for ordinary purposes.

The advisability of sounding fire alarms and removing inmates from buildings for drill purposes in certain types of institutions is debatable. During pleasant weather, or where provision is made for safe egress without exposure, this can usually be done if helpless and nervous inmates are previously notified of the drill and the absence of danger. Where this cannot be done, the fire brigade and safety corps should be organized, frequently instructed, and drilled to whatever extent is practicable, with especial care.

Dispensaries and Clinics.—These are usually comparatively small and are sometimes in hazardous locations. The patients are unfamiliar with their surroundings and need careful direction at

time of fire. Nurses and doctors should thoroughly understand matters of sending in fire alarms, handling extinguishing equipment and directing egress.

Hospitals and Asylums for Insane, Feeble-Minded, Defective, and Epileptic.—There are approximately 600 such institutions in the country. One of the chief difficulties is the provision of a sufficient force of attendance to handle inmates rapidly at time of fire. One attendant at least should be kept in each ward at all times, day and night. Where wards are large, there should be at least one attendant delegated to every fifteen patients.

Many of those in charge of institutions for the insane claim that such persons are easier to control than those in possession of their normal faculties. This may ordinarily be true, but those who have had experience with insane in actual fires contend that they are more susceptible to panic than normal persons. In one instance, when the fire alarm was sounded, patients hid under beds and in closets and fought those who endeavored to take them out.

Ordinarily no fire drills are held for insane patients, but several times each day they are assembled and marched in orderly manner to meals, to work, or to exercise. This gives excellent opportunity for drilling them in rapid exit, and on such occasions the regular fire drill signal should be used and patients should be required to form and march out in as rapid and orderly a manner as would be necessary at time of fire. For drill purposes, patients should be assembled and marched out at irregular times of day. Night drills, while desirable, may not be feasible.

At many institutions for insane there are work shops for raffia work, weaving, printing, mattress work, baking, shoe repairing, painting, carpentry, tailoring, etc. They all have their special fire hazards, and should never be located in main buildings occupied by inmates.

Insane patients have been known to jump from fire escapes with fatal results. Fire escapes, therefore, should preferably be enclosed by screens.

For existing combustible buildings of frame or wood-joisted construction, the following should be provided:

1. A thorough detailed survey of the property by competent fire prevention engineers.

2. An arrangement of logical program for improvement covering the most important matters first, and making each dollar spent provide maximum protection. Such a program will usually include:

(a) Elimination of possible causes of fire.

(b) Automatic sprinkler protection.

(c) Proper egress facilities.

(d) Enclosure of floor openings.

(e) Subdivision of large areas.

(f) Use of fire-resistive construction for boiler rooms and other hazardous places.

(g) Detailed fire prevention work and frequent inspections.

(h) Frequent fire drills.

(i) Instruction of all employees in fire prevention, fire extinguishing, and sending of alarms.

PREVENTIVE MEDICINE INCREASES IN IMPORTANCE

"During the last few years increasing importance has been given to the preventive side of medicine," says the *Nursing Mirror*, in a recent number. "The case of those who are suffering from grave maladies at an advanced stage is fast ceasing to be the most 'interesting' to doctors and nurses, and training in the wards of a hospital is no longer considered the sole qualification for a medical man, whose chief service to the state may be to recognize disease in its earliest stages, when its visible symptoms amount to little more than lassitude and vague discomfort, and the patient is still carrying on his usual routine of active life. At first sight the nurse's opportunities of contact with disease in its incipient stages may seem to have been curtailed rather than enlarged of late years. The financial difficulties of hospitals tend to the exclusion of all but urgent cases; the housing and financial problems of the middle classes make them increasingly unwilling to employ a resident nurse for the care of any but difficult and dangerous cases; out-patient wards as at present organized are but little adapted to the training of nurses from the preventive standpoint, nor can they offer much opportunity to nurses, intent upon prevention rather than cure, to make their influence felt. But there is in special branches of nursing a great field for the trained woman to cooperate in teaching people how to keep well, and investigating disease at its source, thus helping forward the preventive work of the future as materially as they have done the mainly curative work of the past. Preventive medicine being concerned much more with the continuous daily routine of the patient than with his temporary behaviour and reactions in his sick-bed, stands to gain very much from the observations of the district nurse. She has unrivalled opportunities of noticing the effects of food, ventilation, housing, and occupation upon the welfare of her patient, and also upon those of the patient's family who are in health, and it is for her to translate into the terms of domestic manners and customs, those general precepts of hygiene which sound so vaguely in the ears of the unlettered. The school nurse, following up the cases of children inspected by the medical officer, can teach much which will benefit not only the patient, but his family. She may also elucidate questions that necessarily puzzle the doctor. If the child she visits inhabits a back-to-back house, or if its relatives are employed in pulling rabbit fur, she will not expect rapid convalescence."

All the hospitals of one hundred beds and over in British Columbia are included in the Class A group as recently published by the American College of Surgeons. It is considered, too, that several under one hundred beds could qualify for this standard.

DRYING AND IRONING IN THE HOSPITAL LAUNDRY

By Walter Trimble, Chicago, Illinois.

IN MY previous articles I gave a sketchy description of the washers and extractors which are used in a power laundry. Next we come to the drying apparatus. All articles are not dried in a special drying machine, however, for sometimes the damp goods go direct from the extractor to the ironing machine.

Where fabrics are dried preparatory to ironing, the process is of more importance than one would assume at first thought. First, if the articles are dried at too high a temperature, they may be baked and thus ruined, especially in the case of woolens. Second, there is more than a little fire hazard in connection with dry rooms and drying tumblers, for when hot goods are taken out of them and packed tightly together there is danger of spontaneous combustion. As a matter of fact, many fires have started in this way.

The Drying Apparatus

The simple type of laundry dry room, used in small plants, is merely a compartment, heated either by a stove or by steam coils, into which compartment the articles are hung and left to dry. The more elaborate dry rooms have ventilating fans, and the pieces are dried as they are conveyed through the compartment, on endless chains. A conveyor dry room is shown in one of the accompanying illustrations.

IRONING DEPARTMENT OF SMALL HOSPITAL LAUNDRY.

At the right is shown a small flat work ironer. Back of this is shown a conveyor dry room. At the left are three hand-ironing boards, and back of them is an old-fashioned body ironer, a machine which rapidly is being supplanted by the pressing machine.

The latest type of drying apparatus, and one which to some extent supplants the old-style dry room, is the heated drying tumbler. This machine, as shown by the accompanying illustration, consists of an outer shell, in which an inner shell rotates forward and back. A blast of heated air enters this machine and passes through the goods, thus drying the pieces. In some cases a blast of cold air is passed through the dried goods, to cool off the pieces, so they may be more easily taken out of the machine. This cooling of the goods also removes the fire hazard, and it is claimed that it also removes all odors of soap, which sometimes have a tendency to linger in the goods.

MULTIPLE-ROLL FLAT WORK IRONER.

This illustration shows the chest type of machine, with four padded rolls. The pieces are fed into the machine at the end which is near to the wall, and they come out on the table, where they are folded.

In some plants, the starched pieces are dried in a heated tumbler, instead of putting them through the dry room. This practice has some advantages, it is claimed, but if this plan is used, one must be careful not to "tumble out" the starch. This can be avoided by the exercise of a little care. There is a difference of opinion as to the merits of this plan, and therefore each laundry superintendent will have to rely on his own experience to guide him, as he must in many other matters where practical men do not agree. In this connection it may be well for me to explain that it is not my desire to advocate any particular plan, and that my purpose is merely to place different ideas impartially before the reader, who must do his own thinking and make his own decisions.

Sometimes, the starched work is not dried before it is ironed, but goes to the ironer damp, as it comes from the extractor. This plan, which has

1. This is the fourth of a series of articles by Mr. Trimble on "The Hospital Laundry." The first three appeared in the November, 1920, December, 1920, and January, 1921, issues of The Modern Hospital.
2. The Modern Hospital, January, 1920.

many able advocates, will be discussed later, in connection with the subject of starching, to which it belongs.

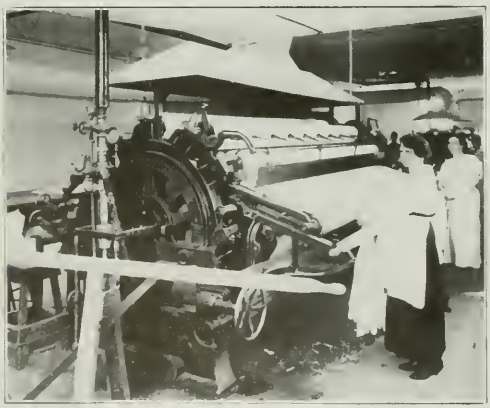
The flat work, as I have explained, consists of sheets, hand towels, pillow-slips and similar articles, and it is ironed direct from the extractor, damp, on a machine which formerly was called a mangle, but which now is called a flat work ironer. Usually, the flat work ironer is the most important machine in the hospital laundry, for flat work is by far the greatest portion of the washables in nearly every hospital, and it must be ready on time.

Types of Flat Work Ironers

There are two principal types of flat work ironers, known as "cylinder" machines and "chest" machines. In the former type there is a large cylinder, heated, and the fabric passes between it and a padded roll, of smaller diameter, or perhaps several of these padded rolls. In the latter type, the fabric passes between the concave wall of a heated chest and the padded roll, or between a series of these chests and rolls.

All of the larger flat work ironers are heated by high-pressure steam, but some of the smaller machines are arranged so that they may be heated by gas. The principal disadvantage of a gas-heated machine is that it may be heated too hot and thus scorch the goods, but if due care is exercised, this may be avoided. There are some small machines which are heated by electricity, but unless the price of current is unusually low, it is expensive to operate them.

The type and capacity of machine to be selected depends on the needs of the individual hospital; hence, in installing a new plant one should be careful to select what will best fit the case. The accompanying illustrations will give the reader a general idea of both the large and the small machines.

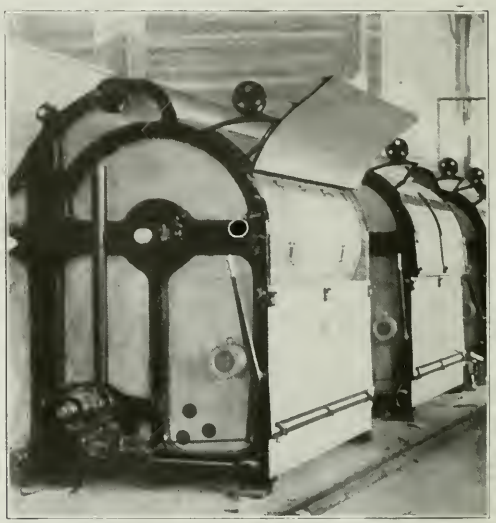


LARGE FLAT WORK IRONER, CYLINDER TYPE.

This illustration shows a heated cylinder type of machine, with several padded rolls. Note the hood above, through which the heated and humid air is drawn by an exhaust fan. The front is guarded so that the feeders cannot get their hands caught in the machine.

Other Ironing Machines

As the old-style body ironer, used for ironing apparel, is passing out of use, we will not discuss it. The successor to this faithful standby is the pressing machine, one of which is shown in one of the accompanying illustrations. A great variety of work can be done on modern pressing machines, and with a great saving of both muscle and time.



HEATED DRYING TUMBLERS.

The heated drying tumbler is a very useful and very economical machine. Bath towels, blankets, underwear, and many other articles, after being dried in this machine, do not need to be ironed.

There are several makes and types of pressing machines, all of which are steam heated, but the principles of all of them are the same. The laundry pressing machine has a heated and padded surface, on which the piece of goods rests while it is pressed by a polished-metal surface, without friction. Do not confuse the laundry press with the garment press which is used by the dry cleaner and the tailor, for in the latter machines there are two padded surfaces, both heated, and steam issues from the top, or "head," thus dampening the cloth.

There are several smaller machines which are used for ironing various articles, but I will not discuss them at length. Shirts may be altogether ironed by hand or they may be ironed by machine, the better method being determined by the number of shirts to be done. What is called a

A SHIRT FINISHING DEPARTMENT.

A shirt finishing department of this type is, of course, installed only in a large hospital. At the extreme right is a good view of a pressing machine. At the left are the smaller presses, and in the center is a bosom press. The "unit," as it is called, is served by the conveyor, shown in the background, which saves many steps for the workers.

"unit" of shirt machines is shown in one of the accompanying illustrations.

The ironing machines which are now used in the modern laundry do not finish the goods by means of friction, as in hand ironing, but they impart the smooth finish by means of pressure. For this reason, machine ironing, if properly done, is even less injurious to the goods than hand ironing.

* * * *

Questions and Answers

"How can I prepare cold starch?—Texas."

I do not believe that it will pay you to bother with preparing cold starch. It will be less trouble to buy the ready-to-use cold starch from your supply dealer, and it will cost you less. All you will have to do is to follow the maker's directions. However, do not think that one viscosity, or thickness, will do for all kinds of work.

"In the hospital laundry of which I am the superintendent we use ten pounds of chloride of lime per week, in making bleach liquor. I ordered twenty ten-pound cans, a twenty-weeks supply, but the laundry supply dealer sent me a two-hundred-pound drum instead. When I protested, the dealer claimed that it makes no difference whether the chloride of lime is in small cans or in bulk. Is this correct?—Washington."

No, it is not correct. The value of chloride of lime depends entirely on its percentage of available chlorine, by which is meant the amount of chlorine which will be given up and enter a water solution. The moist, warm atmosphere of a washroom will cause exposed chloride of lime to lose its chlorine content quickly. If possible, purchase it in small containers, so that you can use all of the contents as they are opened, thereby getting the full advantage of each container's chlorine content.

APPROPRIATIONS NEEDED FOR PUBLIC HEALTH SERVICE WORK

The United States Public Health Service has issued a summary of some of the points emphasized by Surgeon General Cumming in his annual report of the Public Health Service. In speaking of the appropriations which are needed for the work of the Service, the Surgeon General said: "In October, 1919, the department submitted to Congress a program recommending an appropriation of $85,000,000 for the construction and acquisition of additional facilities to meet the growing needs of the Service in connection with the care and treatment of war risk insurance beneficiaries. Congress, in its wisdom, however, deemed it unadvisable to appropriate this money for hospital purposes. Since then, the number of beneficiaries has steadily increased, and recent reports indicate that about 20,000 patients were, on July 1, receiving hospital care from the Public Health Service, as against 2,000 when the request was made.

"In addition to increasing existing facilities by the construction of new hospitals, it is desired to bring to the attention of Congress the dilapidated and unsatisfactory condition of many of the hospitals now owned and operated by the Public Health Service. Some of these hospitals have been owned by the government for years and were used for the treatment of seamen of the merchant marine and other beneficiaries of the service, prior to the act which admitted ex-service men of the recent war as beneficiaries. It is presumed that these institutions will be used for years to come for these beneficaries, despite action which Congress might take with reference to the beneficiaries of the War Risk Insurance Bureau. It is therefore necessary that these institutions be placed in first class condition. All of the marine hospitals at the present time, with but few exceptions, are of antiquated construction and badly in need of repair. Only a few years will elapse before it will be necessary to discontinue entirely the use of these institutions, unless steps are taken to reconstruct and remodel the same to meet with modern ideas of hospital construction and management. Recommendations as to the hospital needs for patients of the Bureau of War Risk Insurance will be presented to Congress in a separate communication.

"The Public Health Service reiterates its firm belief that an adequate hospital construction program should be undertaken by the national government for the care of ex-service men and women. It is not clear how this responsibility can be adequately met in any other way. It is not believed necessary to go into a very extensive hospital construction program, but certain consideration should be given to a program sufficiently adequate to meet the needs of the situation, and this will mean the expenditure of many millions of dollars. It is repeated that the special needs to be met are those of ex-service men and women suffering from tuberculosis and mental disorders. These groups of patients will require treatment for long periods of time, and their demand is for care and treatment in governmental institutions."

A Duty of Social Service

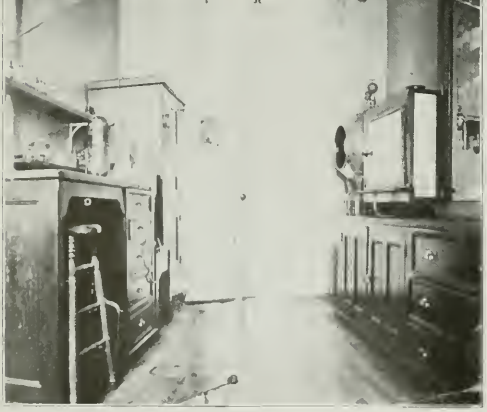
One important phase of hospital social service work should be to see that the affairs of the patient are not neglected or mismanaged while he is in the hospital. Quite often complaints of this kind come into institutions, and through the social service department it is possible to investigate them and, if necessary, bring them to the attention of the proper authorities.

PLANNING AND EQUIPPING THE SMALL HOSPITAL LABORATORY

By WILLIAM A. HINTON, M.D., Pathologist, Boston Dispensary, Boston, Mass.

The planning and equipping of a small clinicopathological laboratory involves the selection and placing of the equipment that contributes best to ease and economy of laboratory work. Without the services of a recognized pathologist of administrative ability, this is a most difficult task, for the pathologist of such a laboratory is usually a recent medical graduate who has had little or no experience in planning and equipping a laboratory. Moreover, he has usually received his training in pathology in a large hospital, where the facilities for routine work and research work were ample, consequently he has little conception of the actual needs of a good laboratory in a small or moderate sized hospital or dispensary. In some instances a technician, whose judgment for purchasing apparatus and planning the laboratory is immature, is secured, rather than a medically trained pathologist. The superintendent, therefore, must be looked to ultimately in such instances, to supply the judgment necessary for the efficient planning and equipment of a clinicopathological laboratory.

As an aid to administrative officers, planning such a laboratory, this article will be valuable. The laboratory described herein affords facilities for carrying out thoroughly the ordinary routine examinations, the examination of milk, the preparation of tissues for histologic examination and simple bacteriological work.—Editor.



Photograph of the interior of the pathological laboratory of the Lowell Corporation Hospital, looking toward the entrance.

THE most meagre requirements of a clinicopathological laboratory should include facilities for carrying out routine examinations of blood, gastric contents, feces, spinal fluid, sputum, urine, and milk, also for the preparation of tissue for histologic study, and the execution of simple bacteriologic work, including the making of ordinary culture media.

I have chosen the plans and equipment of the pathological laboratory of the Lowell Corporation Hospital to show how a very small room may be equipped for such work. Its facilities are sufficient for a hospital of one hundred or less beds and a dispensary service of less than 50,000 patients per year. No provision was made here for performing necropsies, but the tissue obtained from them may be prepared for thorough histologic investigation without additional facilities. Usually it will be found best to have the complement-fixation work performed in the nearest laboratory of recognized standing.

The original design of the Lowell Corporation Hospital did not contemplate the establishment of a laboratory. The single room actually selected for this work was chosen because it was practically the only available space. The room has a north exposure and is eleven feet wide by fifteen feet, nine inches long. Its small size at once imposes great restrictions. Extreme care was necessary in the arrangement of equipment to leave sufficient unoccupied floor space to allow facility in laboratory manipulations. Further, it was desirable to consider certain architectural features of the building—the positions of the window, door, steam radiator, and plumbing. Even in planning a new building a careful study with the architect of these structural elements will greatly reduce the cost of laboratory construction. The plans and photograph illustrate the arrangement and relative sizes of some of the equipment.

Furniture and Cabinet Work

The cabinet work is of oak, stained in mission finish. Linseed oil, diluted with turpentine or furniture polish, is applied from time to time as required. No varnish or shellack is used because many of the chemicals used in laboratory work mar furniture and cabinet work finished in that manner. Clear yellow pine of good grade, similarly finished, is cheaper, almost as durable, and makes a very neat appearance. The table tops.

throughout are of white wood and finished with the following acid proof stain which makes a very durable surface: solution I: copper sulphate, 125 grams; potassium chlorate, 125 grams; water, 1,000 cc; and solution II: hydrochloric acid, 180 cc; aniline oil, 120 cc; water, 1,000 cc. Apply with brush two coats of solution I while it is boiling hot, allowing from twelve to twenty-four hours interval between each coat. After the solution has dried thoroughly apply two coats of solution II, allowing the same interval between the coats. After the last coat has dried, wash with soap and water and allow the tops to dry thoroughly, then rub the surface with fine pumice stone and boiled linseed oil. One should be cautious in applying solution II to avoid aniline poisoning. Thick rubber gloves afford ample protection against this danger. If table tops so treated are occasionally rubbed with equal parts of boiled linseed oil and turpentine, a very smooth, uniformly black, ebony-like surface will be obtained. Wooden table tops are superior to slate, glass, or any similar hard substances because the wood is more elastic and does not break glassware so easily.

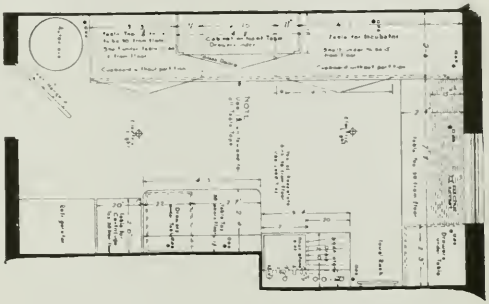
Arrangement of Equipment

Table space is provided adjacent to the autoclave, centrifuge, refrigerator, and incubators, where articles to be placed in or removed from any of this equipment may be laid while the cabinet doors are being opened or closed. The sink and the table for chemical work are higher than the usual ones in order to make the work easier while standing.

Above the soap stone drain are four small cold water faucets for washing Zenker fixed specimens. The sink is equipped with a combination hot and cold water faucet and over it against the wall is a shelf made of two inch oak, five feet two inches from the floor, to hold cylindrical graduates. The shelf for holding cylindrical graduates is doweled in front to prevent splitting. Such a shelf is desirable because these graduates are likely to fall and break at the top, unless properly supported when not in actual use. Another shelf is located against the wall twenty inches above the table for chemical work.

The incubators are placed in a corner to avoid draft, which otherwise would greatly interfere with even temperature regulation. A slatted shelf to store pieces of apparatus was placed under the table in the front of the window, and adjusted to serve also as a footrest; comfort and ease add greatly to the quality and quantity of the laboratory output. A similar shelf would have been placed under the table next to the centrifuge if this space had not been occupied by a steam radiator.

No space was available for a store room. The shelves and cupboards accommodate all of the apparatus and supplies to be listed. A separate store room under lock and key would be preferable.



Plan of the Pathological Laboratory of the Lowell Corporation Hospital.

List of Apparatus and Equipment

The most important apparatus is as follows:

1 autoclave.
1 hot air oven for drying glassware, browning cotton stoppers for culture work, etc.
1 small incubator for paraffin sections.
1 incubator for bacteriologic purposes. (If heated by gas, both these incubators should be furnished with Roux bimetallic thermo-regulations.)
1 refrigerator.
1 electric centrifuge with accessories. (This should accommodate at least 6 urine sediments at a time.)
1 microscope with oil immersions and Abbe condensor.
1 microtone for frozen sections.
1 microtone for paraffin sections.

All of this is permanent equipment, and the greatest care should be used in its selection. Poorly constructed, cheap apparatus is very expensive to keep in good repair. The size will depend on the amount of work required. In securing the incubator, the paraffin oven, the refrigerator, the hot-air oven, and the centrifuge, it is wise to allow for the future growth of the work.

In addition to these larger and more expensive pieces of apparatus, most of the following will be required:

1 electric lamp for microscopic illumination equipped with a special "daylite" filter.
1 two-burner gas stove.
1 Harvard Trip balance.
1 set metric weights, one gram to 1,000 grams.
6 bunsen burners with pilots.
6 ring stands.
1 tripod (outside diameter 6¼ inches).
6 pairs forceps.
1 sterilizing pan.
5 brass test tube racks.
12 brass test tube baskets.
1 meat grinder.
1 set cork borers.
2 platinum loops.
1 agate double boiler.
1 triangular file, 5 inch.

2 galvanized iron waste cans.
6 test tube brushes (large).
6 test tube brushes (small).
6 six-inch wire gauze squares.
6 pinch cocks.
6 cover glass holders.
6 test tube holders.
2 thermometers.
1 urinometer and cylinder.
1 tuberculin syringe.
2 Luer syringes, 10 cc.
1 diamond pencil for writing on glass.
1 bellows for blast lamp.
1 blast lamp.
1 Barnstead still (steam or gas).
1 1,000 cc. cylindrical graduate.
2 100 cc. cylindrical graduates.
2 25 cc. cylindrical graduates.
1 set beakers (50-1,000 cc.).
1 burette (50 cc., graduated in tenths, with glass cock).
1 burette (50 cc., graduated in tenths, for alkaline solutions).
2 glass funnels, 2 inch to 4 inch diameter.
2 glass funnels, 6 inch to 8 inch diameter.
1 corrugated funnel, 8 inch diameter.
10 gross test tubes (125 mm. by 15 mm. diameter).
5 gross tubes (100 mm. by 10 mm. diameter)—useful for serum work, and for sedimenting urines.
2 gross thin tubes (150 mm. by 20 mm. diameter).
1 1,000 cc. volumetric flask.
1 500 cc. volumetric flask.
1 50 cc. volumetric flask.
1 dozen 10 cc. pipettes, graduated in tenths.
1 dozen 1 cc. pipettes, graduated in tenths.
1 dozen drop bottles (50 cc.).
1 dozen drop bottles (30 cc.).
6 staining jars (Coplin).
6 staining jars (flat).
12 stender dishes with glass tops.
12 boxes glass slides.
12 boxes cover slips, ⅞ inch.
6 2,000 cc. Pyrex glass Erlenmyer flasks.
6 500 cc. Pyrex glass Erlenmyer flasks.
6 250 cc. Pyrex glass Erlenmyer flasks.
6 100 cc. Pyrex glass Erlenmyer flasks.
12 wine glasses (for testing albumin in urine).
10 pounds glass tubing assorted from 5 mm. to 1 cm. in diameter.
2 500 cc. graduates.
2 250 cc. graduates.
1 100 cc. volumetric pipette.
1 50 cc. volumetric pipette.
1 25 cc. volumetric pipette.
2 10 cc. volumetric pipette.
2 2 cc. volumetric pipette.
2 1 cc. volumetric pipette.
6 fermentation tubes.
rubber tubing (as required).

These lists include practically all of the equipment except chemicals, stains, and a few surgical instruments to be used in connection with histopathology.

Cost of Equipment

The entire equipment, including the installation of plumbing and cabinet work, should not exceed $2,500.00 even at the present high cost of labor and materials. This figure assumes that the best workmanship and the best quality of materials are used throughout. No other should be employed because the upkeep of poor apparatus and equipment is both annoying and expensive.

This plan and equipment may be adapted to almost any space of equal or greater size. A north light is desirable, both for microscopic work and for even vision, throughout the day. However, microscopic work may be done with equal or greater facility in a room not especially designed for it, if the special electric lamp for illumination is used. Space for laboratory purposes should be near the dispensary department, in order to serve both hospital and dispensary with the least inconvenience.

SURGEON GENERAL DISCUSSES DANGER OF EPIDEMICS

Surgeon General Cumming, in the annual report of the Public Health Service, discussed, among many other subjects, the matter of appropriations for new hospitals for war risk insurance patients, immigration and quarantine, situations here and abroad and the loss of personnel to the Service. He said, in part: "With the cessation of hostilities in Europe and the resumption of maritime commerce, the danger of the introduction of epidemic diseases into the United States increased. During the war, sanitation and public hygiene were more or less neglected. In the countries of central Europe conditions became very favorable for the outbreak of epidemic diseases, and, in many areas infection of typhus, plague, and cholera smouldered along, ready to burst forth under conditions that subsequently were sure to arise. The saving feature of the whole situation was the restriction of travel from one country to another. On the resumption of commercial intercourse, the expected happened. Even before the armistice this condition of affairs was foreseen and medical officers of the Public Health Service were sent to Europe for the purpose of investigation and to make preparation for the application of preventive measures at European ports of departure whenever trans-Atlantic travel should be resumed. At present, officers of the Public Health Service are stationed at practically all of the important ports of continental Europe for the purpose of inspecting vessels and personnel, prior to their departure for ports of the United States. All verminous persons coming from typhus-infected areas are required to undergo appropriate treatment, and detention when necessary, before embarkation. Notwithstanding this precaution, however, typhus has broken out on several of the vessels bound for ports of the United States, but, with the detection of the disease on the arrival of the vessel, and the appropriate treatment at quarantine stations, the efforts to prevent the introduction of typhus from Europe have proven entirely successful. Measures in force along the Texas-Mexican border to prevent the introduction of typhus from Mexico into the United States have been equally effective. While typhus would probably never cause such a serious epidemic in the United States as in other countries, yet it is probable that the conditions in the tenement sections of the larger cities would be productive of a serious epidemic of typhus if the infection were introduced into such localities."

THE ROYAL PRINCE ALFRED—A GREAT AUSTRALIAN HOSPITAL*

By WILLIAM EPPS, F.C.I.S., Secretary, Royal Prince Alfred Hospital, Sydney, N. S. W.

APART from these particulars of general and financial conditions which may or may not be of interest to readers of THE MODERN HOSPITAL, it may be stated that the hospital is conducted generally much on the lines of a well managed American hospital. The daily average number of in-patients, accommodated in 518 beds, runs from 480 to 500, while the out patients proper treated in 1918-19 totaled 11,583 and the casualty cases, 16,335, with total attendances between the lot of 82,607. Of the in-patients, the majority are surgical cases, the number of operations in the year mentioned being 4,294 out of a total of 7,667 treated. The hospital indeed is rather noted for its surgical work. This proportion of surgical cases was much less in the year quoted than usual, however, owing to the outbreak of influenza last year, which necessitated the closing of several surgical wards for a time. In 1916 the operations totaled 5,258. In its general work the hospital, in addition to large general, medical and surgical departments, has departments in gynecology, ophthalmology, skin, ear, nose and throat and venereal diseases, with special departments for pathology, radiography, and medical gymnastics or orthopedics. Most of these have been in existence for many years, the hospital being the first in Australasia to open a medical gymnastics department in 1906. In its out-patient departments it has all these branches of work also, together with special clinics (day and night) for venereal diseases, and an anti-tuberculosis dispensary, with nurses visiting patients in their own homes.

*This article appears in two parts. The first part appeared in the January issue of THE MODERN HOSPITAL.

Social Service and Auxiliary Developed on Progressive Plan

This work is, of course, all quite familiar to hospital men in America, from whom we have ourselves derived many valuable ideas. Among these may be mentioned the social service scheme, which we have had in existence in the hospital for several years, under a trained staff of experts and this has proved a wonderful source of help to the medical staff and of comfort to patients. We have also lately inaugurated a hospital auxiliary with so far, we think, wonderful results. In 1918-19 the writer carried out a campaign to raise a special fund for the hospital in connection with its jubilee which fell in 1918 and succeeded

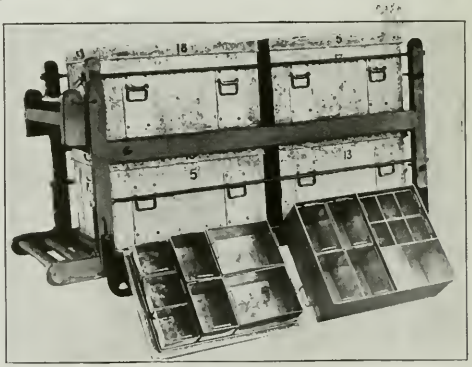
The Royal Prince Alfred Hospital from the rear.

by various means in raising £28,000, equivalent to nearly $140,000. In this work the services of a number of men and women were given voluntarily. When the fund closed, the war was just over and many of those who for years had been doing war work by giving voluntary aid and in carrying on comfort funds for different military camps, found themselves out of harness. This was an opportunity not to be lost and we followed up the Jubilee Fund by securing the help of some hundreds of these good women, and a few good men, to work as an auxiliary to the hospital. They have done splendidly. In less than twelve months they have brought in cash over £4,000 ($30,000) and have given much personal service with such enthusiasm that the other hospitals are following suit. It appears our auxiliaries have come to stay.

Methods Used by Auxiliaries Fit Particular Circumstances

It may interest your readers to know something of our methods. We have central city offices, three bright well-furnished apartments, one of which is a sewing room. The latter, as well as a large room at the hospital, is filled five days a week with enthusiastic women who make shirts, night gowns, pajamas, sheets, pillow cases, and what not, the auxiliary providing the materials, and its executive has now agreed to provide for the next financial year, beginning on July 1, the whole of the linen and fabric material required in the hospital. This means an annual saving of some $15,000. The systems of raising funds are varied. The organization has a general council of men and women of standing, with an executive representing all the main committees and a finance committee. In addition there are various sectional committees, all composed of women who carry out various undertakings. One of these runs a tea room at the hospital, at which one can get morning or afternoon tea and a good lunch at a reasonable figure. In view of the fact that there are always visitors to patients seriously ill in the hospital, that there are medical and massage students (for this is the massage school for the state in conjunction with the medical school) and nurses who wish to entertain their friends, there is always a clientele, and the tea room shows a profit of some $3,000 a year. A different lot of women do the cooking, kitchen work, and serving every day (except Saturday and Sunday when the room is closed), most cheerfully and capably, so that this is a social center for the hospital. In close conjunction with these women are others who undertake catering for various functions, sometimes on a large scale. Thus at the last Easter show of the Royal Agricultural Society, they carried on a tea and luncheon room from day to day for ten days with such success that a sum of about $4,000 was netted. This was a big affair, involving an attendance of nearly 100 women a day, all giving voluntary help, except for a few paid cleaners and kitchen hands, and they did the cooking and waiting in a most capable way. Another lot of women again hold a jumble sale of articles of left over clothing, boots, pictures, books, and furniture every week at Laddy's Market, Sydney, for poor people. These sales realize about $2,500 a year. Then we have other devices such as a raffle for a piece of land which was donated, and which brought in nearly $2,000, besides a new list of regular subscribers in cash who were secured and donated some $2,500. The linen committee is not a body for raising money, but for executive action, and its members and supporters, generally give a day a week each at one or other of the rooms. The ward and flowers committee collects on one day a week at the various railway stations and wharfs, flowers, jams, fruits, eggs, etc., for use in the wards. These efforts also represent considerable money value. Other committees give service by way of providing and carrying on a library for the patients; another gives almost daily service in the children's wards by way of kindergarten classes. It is hoped that later on a committee will be formed to help in the work of the social service department.

One feature of the auxiliary which has helped in its success so far has been the fact that we have secured the cooperation of various organizations doing other work such as various battalion Comforts Funds, the members of which have been working together and now continue to do so, keeping their old names and associations. We also have had the most valued service of an organizing secretary, a woman with social and other

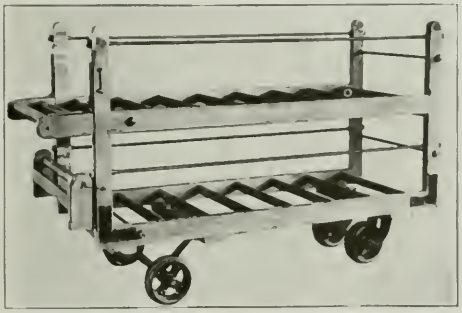


Thermos dinner containers for carrying hot meals in the wagon.

experience, a capable public speaker, a writer, and a good organizer, who has been able to weld these women into a valuable whole, and keep them going. She is a paid officer of the hospital, which also pays the rent of the city offices. In some respects, I think we have thus been able to develop the ideas of American auxiliaries along our own lines in a satisfactory manner.

Individual Devices for Assistance

Some of the peculiarly novel or characteristic features of our hospital may be interesting to note. Opposite the tea room, on the main corridor of the hospital, we have for some years now, conducted a shop, which is a sort of miniature department store for the benefit of the patients, the staff, and the hospital. It is operated on the lines of the 'tuck shop' at the English public school, selling most of the things which one wants while away from home, such as fruit, cakes, sweets, aerated waters (including soda fountain drinks), tobacco, cigarettes, caps, slippers, stationery, books, tooth and hair brushes, and what not. When anyone asks for something not available and likely to be wanted again, we get it. We employ two female assistants and charge regular city prices, and as a result clear some $3,000 to $3,500 a year profit, besides affording useful help to the patients and staff, who would otherwise have to go outside the hospital. Then we have also a barber shop, run by an experienced hair dresser who visits the wards at various times to shave patients or cut their hair, and during the rest of his time stays in his shop and operates sartorially upon the heads or faces of the resident doctors, students, or walking patients. The latter include a number of military cases, of returned discharged soldiers. As previously indicated, we receive a large number of these from the Repatriation Department, for which we reserve, under agreement, a special block with 120 beds. This has always been filled so far. It is hoped that before long we shall be able to maintain a second barber. We opened this shop only a few months ago and so far it has paid expenses, with a little over.



The novel wagon used for the conveyance of dinner containers.

I may perhaps mention one or two other things, particular to our own hospital, among which may be found something worth consideration. In our dispensary drug store we make our own disinfectants, a number of our other drugs, such as tinctures, our plasters, and various other articles for use in the ward, and thus save, we estimate, $3,000 a year on outside prices. We also make our own aerated waters for use in the wards and by the staff at a cost of about four to six cents per dozen of syphons of soda water, with equivalent costs for other liquors. We have our own butchery, buy our meat wholesale from the carcass butchers, and have two butchers to cut it up. It is kept in our own cold storage and as a result we pay much less than the average citizen for his meat, even after the butchers' wages are included in the cost. What is more, we have the best meat on the market. No other hospital here does this. In our pathological department we have also a mortuary chamber with accommodation for eighteen bodies. We also make our own ice for use in the hospital at a cost, we estimate, much less than outside prices. We have also a soap making plant in which we manufacture all the soap used in the hospital, for the laundry, house cleaning, or personal use by the patients and staff, out of the fat refuse from our butchery and kitchen, which has proved sufficient so far for the making of all the soap needed for the institution without purchasing tallow. This is a recent innovation but is a success, and we count on saving some $1,500 to $2,000 a year by it. An outside soap maker comes regularly to make up the soap and with his wages our soap costs us not much more than one-half the outside market price, after allowing for what we should get by the sale of fat. We have for many years made our own laundry soap at a great saving on outside prices. We run a steam laundry doing some 30,000 articles a week.

I think perhaps I should mention here a successful innovation we have recently carried out in connection with our kitchen. Previous to a year or so ago we had three kitchens, one each for the patients, and for domestic staffs, for the medical staff and nurses.

We have a fine home with 210 bed rooms, all occupied, for our nursing staff, and one for the resident medical staff. Our main kitchen having become obsolete, we greatly increased and remodeled it, equipped it with modern steam, coke, and gas cookers and appliances, and so rearranged the system that all the cooking for the patients and all the staff is done here, with the aid of

bain-maries in the serving rooms of the nurses. This is a great success, but of course this work is not new to most of my readers. What may be new, and certainly is a great success with us, is our system of transportation of food to the wards. Formerly it was found to be impossible to keep food hot and not to have to dish it up long before it was served. We have found the solution, however, in a system of thermos containers, one of which is provided for each ward. These are made of strong galvanized iron, with hollow walls, about an inch thick, filled with cork chips and with a lid fitting close down with a flap, also filled with chips. Into this container fit movable inside containers in strong blocked tin, which are subdivided into sections in which are placed various articles of food as specified in the ward diet requisitions, while a lid to fit on this again carries other separate tins containing puddings, etc. The food is all served in the ward kitchens and there is no need for the use of bain-maries or heaters. This is due to the fact that running along the greater part of the kitchen is a hot steel cupboard, heated by steam pipes to a temperature of say 180 degrees to 200 degrees Fahrenheit, in which the inside containers are placed prior to the time for dishing up. As the various foods are prepared they are placed in their receptacles in these containers, and the effect is that the food goes through a process of improvement even while it is being kept hot. At the given signal the porters come and lift out the containers, place them in the thermos containers, which are placed on the wagons, and in five minutes from the signal being given the food is ready to serve, hot and tasty, in the wards. The ward sisters all declare that the food is 100 per cent better than before. Certainly the scheme is a great success.

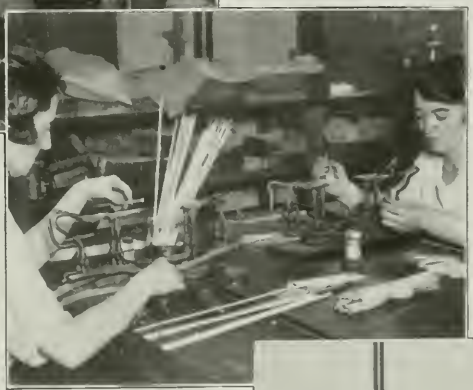
Small Charge Made Visitors

Two or three years ago, finding we needed more revenue, we decided to follow the Melbourne Hospital, by making a small charge to visitors desirous of seeing patients, not on the serious list, who may be seen at all times by their friends at other than visiting hours. Everyone predicted disaster. But it has not come yet. It may be explained that each patient on admission has two visitors' tickets handed to him, and these admit two visitors at the regular visiting hours on Wednesday, Friday, and Sunday afternoons. Thus everyone possesses the privilege of having two of his friends to see him by handing them these passes. But these others often want to come at other hours, as every hospital knows, and they are a perpetual nuisance. We have now fixed certain other hours, say, from seven to eight on the evenings of days other than visiting days and Saturday afternoon, when extra passes may be obtained on payment of six pence, equivalent to twelve cents, entitling visitors to enter the wards. From the start this was a success. We are now issuing 100,000 of these extra passes per annum, resulting in a revenue of $10,000 a year, without any inconvenience in the work of the wards, and without the constant irritation of issuing special passes. I commend this as a means of raising revenue without friction, without cost.

I should mention, perhaps, before closing this recital of our virtues and our features, the fact that for seventeen or eighteen years I have run a quarterly journal in connection with the hospital, which provides a sort of newsy record of what has taken place during the previous three months, with some other articles on health and allied subjects of a generally interesting character. Also we present in this, one draft annual report of the year's work before it is submitted at our annual meeting, and a report of that meeting in the following issue. In this way anyone interested in the hospital is kept aware of all that is going on. This is now a rather attractive looking magazine or journal, which practically pays for itself by the advertising obtained, but much more than pays for itself by the interest it keeps alive among our subscribers and sympathizers, and by the prestige which it gains for us. No other Australian hospital does this. We issue some 3,000 copies each quarter, and those which are not sent to our subscribers go to other hospitals, medical men, etc., so that we thus provide a good advertising medium for firms doing business with us and others—and for ourselves.

TOO MANY DIAGNOSTIC METHODS CAUSE CONFUSION

The Medical Standard questioned recently the advisability of applying such a large variety of diagnostic methods in the diagnosis of every patient. It may be that in the maze of technique, the real results will be lost. You will not be able to see the forest for the trees. Diagnosis is detective work, and while it is the part of a good detective to have at his command all the means of detection the science of criminology affords, yet he should not use them all indiscriminately. In the same way, an indiscriminate, routine, stereotyped system of diagnosis is more likely to bewilder than help. There are certain diagnostic measures which might be considered as elemental, they should make the foundation in every case. A urinalysis, a blood count, a Wassermann, and a thorough physical examination make the basis for every diagnosis, and in nearly every case will furnish a clew to the difficulty, which should then be followed up until it either proves or disproves itself. It is all right to say that a diagnostician should have an open mind, but it is better that he should have a clew, which, of course, he can abandon for a better one, or if it disproves itself.



MAKING thermometers is a far more delicate and complicated process than most of us realize. This holds true even to selecting the glass and determining the outside diameter and the size of the tube's bore. The skill and accuracy required in determining the size of the bore are quite as marvelous as the skill demanded of the workman at the blow beach in attaching and forming a bulb which will have such relative capacity to the bore as to produce the scale of 95 degrees to 110 degrees and have it cover, and only cover, the full length of the stem.

As glass contracts with age, the glass used in thermometers must be seasoned and all shrinkage taken up before the scale is graduated on the tube in order to produce permanently accurate thermometers. When the thermometer tubes leave the glass room of the manufacturer, after passing all examinations for defects, they are boxed, sealed, dated and placed in seasoning vaults for a long period, often two years, before they are pointed and the graduations engraved. After the test points are obtained through immersing the tube in the testing bath, the complete scale is graduated on the thermometer. This is done by first dipping the tube and giving it a thin coating of wax. A dividing machine, adjusted to produce a fine or coarse scale as may be necessary in each individual tube, graduates the scale. The numbering of the degrees follows. During these processes the film of wax remains on the tube. It is now ready for the etching process. Hydrofluoric acid applied to the stem etches the glass where the wax has been cut away in graduating and numbering, to such a depth that when the wax is removed from the tube the lines and figures are deep enough to hold the indelible filling which makes them legible.

The upper left hand picture shows the testing of the clinical thermometer; the upper right hand picture, engraving the numbers and names on thermometers; in the center picture tubes are being closed; the picture in the left hand corner illustrates the process of pointing the heat points on household thermometers; the lower right hand picture shows the waxing process.

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Contributors, subscribers, and readers will find important information on advertising page 42.

THE LIBRARY AND SERVICE BUREAU; AN EARLIER ATTEMPT THAT FAILED

THE inauguration of a library and service bureau under the auspices of the American Conference on Hospital Service, is the realization of an idea latent in the minds of hospital superintendents and others for many years before the proposal to establish such a bureau was formally presented to the American Hospital Association in 1909. The establishment of the proposed bureau presupposed the employment by the association of a permanent secretary and a library force, and its resources not being sufficient for the purpose, the association was obliged to content itself with the adoption of resolutions which expressed a desire rather than a plan.

In 1908, by a supreme effort, the membership of the association was doubled. The organization continued to show evidence of healthy growth during the years that followed, but still its resources were inadequate to the great task; and at the meeting in 1911, it was decided that an appeal for aid should be made to the Federal Government. A committee was instructed to bring the association's ideas and wishes to the notice of Congress, and this committee, with the cooperation of the Surgeon-General of the Public Health and Marine Hospital Service, and through the kindness of Senator Duncan Fletcher of Florida, eventually secured a hearing.

There lies before me a document which tells its own story, and which is of sufficient historic interest to warrant its reproduction in THE MODERN HOSPITAL:

A bill (S. 4972) to authorize and empower the Public Health and Marine Hospital Service to collect, maintain, and make available plans and descriptive matter relative to hospitals, asylums, dispensaries, and like institutions, and make provision therefor.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the Public Health and Marine Hospital Service is hereby authorized to collect, receive, maintain, and classify, in such a manner as may be accessible to Federal, state, municipal, and other hospital authorities and institutions of learning, plans of hospital and dispensary buildings, descriptive matter relating to their equipment, their rules and regulations, periodical and other reports of institutions, reports of committees or individuals engaged in the investigation of local and other special hospital problems, and other matters and literature relating to hospitals, sanatoriums, asylums, homes for convalescents, dispensaries, nursing associations, and other agencies for the care of the sick, and to convey the information thus obtained to said Federal, state, municipal, and other hospital authorities and institutions of learning, under such rules and regulations as may be promulgated by the Secretary of the Treasury.

And for this purpose the Secretary of the Treasury is authorized to submit annual estimates for such clerical help as may be necessary.

In due time a public hearing was granted by the Senate Committee on Public Health and National Quarantine. As may readily be imagined, the bill did not arouse a popular commotion. When the public hearing was opened, nobody appeared in opposition to the bill. The lack of opposition is always a bad sign, for in its absence it is difficult to secure public attention for any measure, however meritorious.

As advocates of the bill, there appeared only a committee of three, representing the American Hospital Association. An Assistant Surgeon-General of the Public Health and Marine Hospital Service, who attended, was luke warm. He pointed out that the bill sought to impose a new and serious responsibility on the Public Health and Marine Hospital Service; that the maintenance of the Bureau might become a costly affair; nevertheless, the Surgeon-General was willing to assume the duties proposed if Congress so de-

sired. The measure was vigorously championed by Senator Fletcher. Some cynical remarks by Senator John Sharp Williams of Mississippi led to a sharp rejoinder by one of the delegates present, who pointed out that Mississippi at that time was rather worse off as to actual hospital facilities than any other state in the Union; and that Mississippi, therefore, would benefit by the passage of the act more than any other state. Eventually the bill failed of passage by the Senate. In the House of Representatives the bill was introduced, but was not even accorded the decent obsequies of a public hearing.

When a government refuses to help a vigorous, loyal, and intelligent people, there is but one thing for that people to do, namely, to help themselves; and now, happily, the hospitals of the United States are to have their library and service bureau in spite of an indifferent Congress. May they support it generously, and use it freely and wisely! S. S. GOLDWATER, M.D.

PUBLIC LIBRARY SERVES HOSPITAL

ONE of the interesting bits of personal service to hospital patients, that has been carried over from the war, is the service of the Sioux City Public Library to the patients in the hospitals of that city, patterned after the work carried on by the American Library Association for the benefit of the soldiers and sailors. Many hospitals maintain libraries for their patients, but few public libraries are making systematic effort to supply the library needs of the patients in the hospitals of their communities. Traveling libraries are going into public schools, into churches and into industrial plants; is there any reason why they should not also go into our hospitals? The pupils of our schools and the workers in our industries could, if they desired, go to the library for their books; not so the hospital patient; all the more reason, therefore, why the public library should bring its books to the hospitals. Such a scheme would enable patients to have a larger selection to draw from than is available in the hospital libraries, which, as a rule, can at best have only a small number of books. Many of these books, moreover, are frequently out of date or consist of volumes of inferior character. The books brought from the public library are much more likely to be up to date. Superintendents of hospitals the country over will doubtless wish to follow the commendable example of the Sioux City Public Library. We feel confident that the libraries will be glad to cooperate with the hospitals in working out an organized plan of hospital service, once the matter is presented in a convincing light.

A NEW IDEA IN HEALTH CONSERVATION

NOT a month goes by but new evidence comes to hand of the emphasis that is being placed on preventive as against curative work, not only in the public health field narrowly conceived, but in the hospital and institutional field as well. In our December issue we published a group of three articles on the new research and educational hospitals of Illinois and called attention editorially to the fact that the underlying principle in the planning, construction, and administration of these hospitals is the preventive principle. In this issue we publish an account (see pages 109-12) of the inception and purposes of the Valeria Home—a new idea in health conservation, as its author puts its. Here, too, the prevention of disease is one, if not the principal object of the undertaking, for it will be the purpose of those interested in the project to provide rest and recreation for people who need rest and recreation before, rather than after they become sick. This is made possible by the wording of the will of Mr. Jacob Langeloth. Mr. Langeloth says the Valeria Home is to be adapted and used for the purpose of a recreation and convalescent home for people of education and refinement who cannot afford to pay the charge exacted in health resorts and sanatoriums.

Situated as it is among the hills of Westchester County, N. Y., the Home gives promise of filling a long felt need of persons of moderate means for a country home of recreation and convalescence. The pity is that even when fully developed, the home can meet the needs only of a limited number drawing from a limited area. We hope that other men of means will follow Mr. Langeloth's excellent example so that in the not distant future a number of similar institutions may be planted at strategic points throughout the country.

OUR ANNUAL REVIEW ISSUE

FOLLOWING the precedent established last year, the March issue will be devoted very largely to reviewing developments and progress in the hospital field during 1920 from a number of angles, with such forecast for the future as is possible. The subjects which will be covered are the work of the various hospital associations, both national and state; hospital developments in Canada; hospital standardization; hospital administration; hospital construction; nursing; dietetics; social service; tuberculosis; venereal diseases; out-patient service; mental hygiene; health centers; drugs and chemicals. The articles will be written by an unusual array of authorities in the hospital field.

DR. HERBERT J. HALL HEADS REORGANIZED DEPARTMENT

WHAT was formerly the Department of Occupational Therapy, Vocational Re-education and Industrial Rehabilitation has been reorganized during the past two months and will hereafter appear as the Department of Occupational Therapy and Rehabilitation.

Owing to the demands that other interests are making upon his time, Mr. Douglas C. McMurtrie, who shared the editorship of the department with Mrs. Carl Henry Davis and who was in large measure responsible for its success, has relinquished his task. THE MODERN HOSPITAL counts itself fortunate in securing as Mr. McMurtrie's successor, Dr. Herbert J. Hall, president of the National Society for the Promotion of Occupational Therapy. He will have the able assistance of Mrs. Carl Henry Davis, Dr. Loring T. Swaim and Miss Mary E. P. Lowney as co-editors, brief biographical sketches of whom will appear in the March issue.

Dr. Hall has been identified for a long time with the progress and development of prescribed occupation as a department of medicine. He graduated from the Harvard Medical School in 1895 and served a surgical internship at the Children's Hospital, Boston, and at the Massachusetts General Hospital. He was engaged for fifteen years in the general practice of medicine in Marblehead, Mass. Early in his practice, and before the principle of prescribed work had been definitely formulated, Dr. Hall felt the need of controlling with accuracy the daily life of his convalescent patients. The little workshop which was established in the spring of 1904 was a new venture in those days, especially for a country practitioner. The principle, however, was sound; experience justified the experiment and from that day to this there has been no break in the succession at Marblehead. Dr. Hall has not been content with the routine use of prescribed occupation, but has made careful study of the underlying principle, the adaptation of special occupations to the varying requirements of physical and nervous disability. For the past seven years he has devoted himself wholly to this study and has been rewarded by generous recognition. He has, however, been content all these years to confine his work very largely to the sanatorium at Marblehead now widely known as Devereux Mansion, but lately the field has widened. During the war he was for a short time in Plattsburg, as contract surgeon, in the interest of the Neuropsychiatric Hospital there. He is a member of the board of managers of the Massachusetts Society for Occupational Therapy and president of the National Society for the Promotion of Occupational Therapy. Besides numerous articles in the medical press, Dr. Hall has published four books, two in collaboration with Mertice M. C. Buck; "The Work of Our Hands," and "Handicrafts for the Handicapped," and two others dealing with occupational therapy, "The Untroubled Mind," and "War Time Nerves."

DR. WINSLOW GOES TO GENEVA

Dr. C.-E. A. Winslow has been appointed to the directorship of the public health activities of the League of Red Cross Societies at Geneva, Switzerland.

Prof. C.-E. A. Winslow of the Yale School of Medicine, and editor of the public health department of *Modern Medicine*, has been granted leave of absence from the Yale Medical School for the spring term, in order that he may assume the directorship of the public health activities of the League of Red Cross Societies at Geneva, Switzerland. Prof. Winslow will return for the fall term after October 1. The long and creditable connection of Dr. Winslow with public health matters peculiarly fit him for this larger field. Dr. Winslow has served in public capacity in sanitary bacteriology and sanitary biology; he has been curator of public health in the American Museum of History in New York since 1910. He was a member of the American Red Cross Mission to Russia, and in various capacities has rendered exceptional service in public health engineering. He has contributed largely to scientific literature. Better choice could scarcely have been made for the responsible post which Dr. Winslow is assuming.

THE NEWEST PROBATIONER

By GENE HARRISON, R.N., Barnes Hospital, St. Louis, Mo.

THE newest probationer had been summoned to the office of the superintendent of the training school. Slowly she went down the corridor, her mind in a tumult of doubt and fear.

"What have I done? Or not done?" she asked herself.

But once at the door of the office Nora gave her brown, unruly locks a toss, her Irish blue eyes snapped, and she walked briskly up to the desk.

"You don't need to send me home," she burst out as Miss Marvel looked up. "You just don't need to send me home. I'm going anyway."

Miss Marvel looked at the girl with eyes as calm as a mid-summer morning.

"Why are you going home, Miss Bryan? Sit down and tell me about it."

As soon had Nora expected the floor to open up and swallow her as for Miss Marvel to ask her to sit down and tell her side of the case. But she plumped down into the proffered chair and began.

"I'm tired of being the newest probationer, I'm tired of dusting and making beds,—and making beds and dusting. I've served trays till I hear them clank together in my dreams. They won't let me do anything interesting, no matter how well I could do it. I got a better grade in materia medica than Miss Music, but they won't let me give medicines because I'm only a probationer. I can spell better than the head nurse, but they won't let me write an order for a doctor because I'm only a probationer. I could do these charts beautifully. Why, I'm considered an artist at home. The senior nurse messes the charts terribly, but they won't let me touch them because I'm only a probationer—and I won't be it any longer. I'm going home. You don't need to send me. I'm going tonight."

Nora drew a long, sobbing breath. Would Miss Marvel call a committee to devise punishment for one so bold and rash? Would she even, maybe, have her arrested?

But Miss Marvel's face was non-committal. "We will speak about the going home a little later, Miss Bryan. Just now would you be kind enough to take a little note down to Miss Parks in the dispensary, and wait for an answer?"

Miss Marvel hastily wrote a few words on a bit of paper, and almost before she realized what had happened, the newest probationer found herself waiting for Miss Parks' note.

The nurse had seated her in a little alcove where she could see plainly the teeming multitude waiting anxiously, fearfully, each for his turn in the clinic. Near one door were the halt and lame, those with twisted bones and gnarled and aching joints. Some were old and gray, others, babes in their mothers' arms, all wrecks by the wayside.

By another door were men and women and children bearing on their faces and hands, perhaps, lesions marking the unholiness of the lives they lived. Here in still another group were those like unto the heathen gods, who, having eyes, see not. Old men were there, and women, too, whose besotted lives had brought this horrible punishment. Little children were there, wee innocents who, according to all fitness, had no right to be born.

Nearest to Nora was a group comprised largely of children with pinched, hungry little faces and pleading eyes. Some showed marks of pain, others of hunger, for better understanding. "He ain't sick," she heard one mother say, "He ain't sick, but he can't learn at school." Since it don't cost much, I'll have it done. But I be dummed if I see how lumps in his neck keeps his brains from workin'."

Eagerly Nora watched the faces as each in turn was summoned by a loud voice into a clinic. Often, as the afflicted one came out, a look of dull despair was replaced by a gleam of hope. Others crept out more worn and haggard still, the last ray of hope crushed and gone.

"Miss Bryan."

Nora started as if from a dream. She took the note handed her by the smiling Miss Parks and staggered blindly up the steps. Once in the open air she drew a long breath, squared her shoulders and rushed pell-mell back to Miss Marvel, little realizing she had spent two hours in the clinic.

"Here's your note—and you can't send me home. I won't go. If you try, I'll—I'll come back under another name."

Miss Marvel's kindly gray eyes twinkled. "Why this change of heart? Sit down and tell me about it."

For the second time that day Nora found herself seated in the presence of one whom malicious or mischievous upper classmen had taught her to fear. Her words tumbled over one another in their eagerness.

"I was so blue—and tired—and homesick when you sent me down there. I hated dusting and beds and trays. But I saw—I saw—Miss Marvel, you know the kind of things I saw. I wanted to take all those little ones into my arms and mother them. I wanted to know things and do things, and I couldn't be blue now, or discouraged, for I am so thankful I am *I*, and not lame or blind, or stuffed up so I can't breathe, or—or—you know, Miss Marvel."

"So you think you will stay with us?"

"Yes, oh yes. I'll scrub floors or anything if you will only teach me how to make humanity better and happier."

Miss Marvel smiled. "Scrubbing floors is out of a nurse's province. And we can only hope to *help* in making humanity better and happier. The instinct of a true nurse has come to you today."

Miss Marvel rose. Nora stumbled to her feet. The superintendent opened the top drawer of her desk, and before the girl realized what had happened a bit of fair white linen was pinned over her unruly locks, which curled in defiance of long smoothing every morning. The older woman took Nora's hand in both her own.

"I welcome you into our training school. And may God bless you, my dear, in all you do."

Nora, no longer a probationer, rushed to her room to write her mother. Miss Marvel unfolded the neglected note, and smiled as she read: "I believe it worked."

SHORTAGE OF NURSES FELT

Owing to the impending lack of trained nurses to staff the hospitals that are being opened by the United States Public Health Service, the superintendent of nurses will make an effort during her tour of inspection to obtain recruits to fill the vacancies. Public Health Service hospitals exist in all parts of the country, and offer opportunities for patriotic service in the care of disabled soldiers of the great war.

BRINGING BOOKS TO HOSPITALS

By C. W. SUMNER, Librarian, Sioux City, Iowa.

THE hospital library is not a new idea, but the hospital library maintained and administered by the public library is somewhat of an innovation. In fact, the library service established November 1, 1919, by the Sioux City Public Library in all of the hospitals of the city, is called "the blessed innovation" by the patients.

This service of the Sioux City Public Library differs from that of any other work of this kind, to our knowledge, in that it is a personal service to the individual patient, such as was carried on by the American Library Association for the benefit of our soldiers and sailors. It is an outgrowth of war library experience. Our books and magazines are wheeled to the very bedside of the patient, and the personal service of the hospital librarian is at the command of every patient in the matter of book selection, story telling, reading aloud, and in fact any other work of a humanitarian nature that she may be able to do. A work that proved so beneficial to our soldiers and sailors, carried over into civil life, may be said to have tripled its value, for in our hospitals we find patients of all types and ages, and from all walks of life. Heretofore we have failed to provide the large number of patients in our hospitals with any systematic or organized plan of library service. Unfortunately, such is the situation that obtains today in practically every city in the country. The spirit of modern library development is to take the books to the people, and not wait for the people to come to the books. In many lines of library development the public library has taken its books to the people. Why not all the more incumbent upon it to take its books to those who are sick and confined in our hospitals? The opportunity lies at the very door of the public libraries of America. Here is a field of service where the library and the hospital can meet on common ground and join in a cooperative humanitarian work of great value. Library officials and hospital authorities can and should bring about the establishment of such a service.

Our work, which has been established now for a little more than a year, has proven its usefulness. Every day's experience increases our conviction that personal service on the part of a professional librarian, in assisting the convalescent patient in the selection of suitable books, in the telling of stories to the children, and in supplying them with children's literature, is one of the most important and valuable forms of work that any public library can undertake. Permanent collections of from three hundred to five hundred volumes have been placed in each of the seven hospitals of Sioux City. The hospital authorities have provided the shelving for the accommodations of the books. Arrangements have also been made for the hospitals to fumigate the books at regular periods. The book-trucks, the books, magazines, and service are provided by the public library. Each hospital is visited twice a week, in the afternoon, by the hospital librarian and her assistant. From the time of entering at one thirty, until leaving at six, there is a constant demand on them to select books, read to patients, tell stories to the children, help to cut out toys and paper dolls, and sometimes draw pictures with colored crayons. All of which is giving help, sympathy, and happiness to others. In the words of the hospital librarian, "We can leave at the end of the afternoon, conscious that the poet spoke not in vain when he said, 'Count that day lost whose low descending sun views from thy hand no worthy action done.' Here is a magnificent opportunity for the public library and the hospital to act in unison in the common cause of humanity."

It will be of interest to the readers of this article to hear from a recent report of the hospital librarian some of the comments called forth as an expression of gratitude for this work by patients: "We were greeted just the other day with this, 'Well, here you are. I have been so miserable today, you are just the folks I have been waiting for. Let me have two or three of those books—they will make me forget my misery.' From another, 'I have been in the hospital twice before this, and have spent so many lonely hours that to me this service is simply wonderful. When I have a good story I forget I have to stay two weeks longer. Be sure to come to me every day, won't you?'

A private room in St. Joseph's Hospital, showing the "Ford" making its rounds to the patient's bedside.

"In one of the large hospitals we found a young man, an Italian; his knowledge of English being limited, we could offer him very little, but when we told him we could bring him books in Italian, his joy was unbounded. On our return visit he informed us that he had finished the ones we had left him, but would not let us have them until we brought others. It is a great satisfaction to hear him express his joy in his broken English. 'Gooda book. You cana bring me nodder one please when you get back.' In another room we find a Greek boy of ten years. 'Yes' and 'No,' 'Very much oblige,' are his only expressions in English. Here is a problem, books are out of the question, but picture puzzles, picture books, cutouts,—will they help to make him less lonely, and can we by this means introduce him to our land and language? We think so. The animal pictures in books and puzzles he now recognizes, the paper boy doll and girl doll, the baby doll, the father and mother doll. He will, after a few days, know all these English words and begin to grasp others. The first day we asked him if he would like a picture book or cut out, he said, 'No.' In turning to leave his bedside the hospital librarian saw his look of distress and disappointment, and realized that his 'no' meant 'yes.' Not

Choosing books, in the "A" floor surgical ward of St. Joseph's Hospital.

only, then, is there the opportunity for sympathy and joy giving, but the hospital librarian can sow the seeds of good citizenship. One day when we were leaving books for a little girl, her mother who was sitting with her thanked us for the service, adding the information that she had, before her marriage, been a trained nurse. She said that she had searched many, many times for reading material for patients without much success, as there was little or no provision of this sort in the hospitals in her day; and added, 'What a help this is to the hospitals and nurses.'"

Numerous unsolicited letters have come to us from patients who have left the hospital, but still remember our work, and appreciate it. The following speaks for itself: "When you have recovered from a siege of sickness, and good health once more brings color to your cheeks, you look back in retrospect and think of those people who helped bring rays of sunshine into the dark days in the hospital.

Any person who has had to spend the lonesome hours following an operation in a hospital, could not resist congratulating Sioux City on its library service to the hospitals. When the little 'Ford,' containing the latest books, is wheeled up to your bed, and you see those silent friends

The convalescents in their rest-room, at St. Joseph's, are not forgotten by the traveling librarians.

brought directly to your hand, you congratulate yourself on your good fortune in being in a Sioux City hospital if it is necessary that you should be in a hospital at all. Then when you find that your choice of books is from the most cheerful selections, and that a personal interest in your particular taste is taken, you know the good old world, after all, contains thoughtful, unselfish people, and that it is a mighty desirable place for the future. It gives you a new spirit, a desire to get better and stronger, and a thought that you, too, may sometime enter into a work of this kind in your lesser way.

Yes, Sioux City, we thank you for your hospital library and its efficient service."

It may be truthfully stated that hospital library service in Sioux City is the result of faith in an idea, rather than an adequate library budget. By an intensive campaign the people of Sioux City gave the library five thousand good books as the foundation for the hospital collections. The book-trucks, costing about $250, were given to the library by our Sunshine Club. What has been done in Sioux City along this line can be done in any city. Is it not worth while?

PUBLIC HEALTH DEPARTMENT ESTABLISHED

The University of British Columbia, though the youngest institution of its kind in Canada, has made some notable progress. It occupies temporary quarters on the Vancouver General Hospital site and a very close bond of union has thus been worked up between the two institutions. Possibly the hospital has taken advantage of this to connect up with it as closely as possible, and today several of the members of the staff of the hospital are on the staff of the University. Last year, as announced in THE MODERN HOSPITAL, a department of nursing was established in the University, giving a combined course leading to a degree in nursing at the end of five years. This department was inaugurated mainly through the efforts of the hospital and today is progressing beyond expectations. The director of nursing of the hospital training school, at present Miss E. I. Johns, R.N., is head of the department of nursing in the University. The enrollment in this department is twelve students. The course is splendidly arranged and indeed will be one of the most popular in the University when it is more generally known. Recently the Nursing Undergraduate Society of the University was formed.

This year a department of public health has been established in the University and Dr. R. H. Mullin, director of laboratories of the hospital, is head of this department, as professor of public health. This department has been established with the assistance, financially, of the Red Cross Society. A public health nursing course began November 15, and some forty graduate nurses were enrolled. The practical work will be given in the various health fields in Vancouver and Victoria. This year the course will cover a period of three months, but hereafter will probably run concurrently with the academic year and there will be combined with it such other work as hospital administration, teaching, etc. Through both these departments considerable extension work is planned for the coming year.

The Greater Vancouver Public Health and Welfare Association has completed a comprehensive directory of all public health and welfare agencies, with a view to linking all these up for better and mutual cooperation. This will materially assist the social service department of the Vancouver General Hospital in its work.

SOCIAL SERVICE AND HOSPITAL ADMINISTRATION*

By IDA. M. CANNON, Chief of Social Service, Massachusetts General Hospital, Boston, Mass.

IT IS my object to indicate some tendencies in the evolution of the hospital that are of concern to hospital administrators and hospital social workers, and to point out our joint responsibility in the making of the hospital of the future. I am assuming that this group recognizes the social service department as an essential part of the modern hospital.

We all know that the modern hospital has been forced to some extent by public health legislation, to take on many new social responsibilities. And if, as seems probable, the hospital of the future must grow to meet new and increasing social obligations, is there not a very real necessity for a deeper understanding between hospital administrators and hospital social workers, who presumably have special knowledge of the community needs and resources, and special skill in dealing with social problems as they are presented by the patients? I want to bring up for consideration some of the ways in which I believe we hospital social workers ought to help hospital administrators to build the hospital of the future.

The hospital is constantly being called upon to meet new social responsibilities, and to do this successfully there must be close cooperation between hospital administrators and social workers. The two services must be so closely interwoven that the patient will not realize at what point the one begins and the other leaves off.

The two strategic points for social work are at the admission of the patient and at his discharge. At these times the social worker should come forward and give the doctors and the patient the benefit of the specialized knowledge which she has gained of social conditions in the community.

The hospital social worker is at all times an interpreter between the doctor and the patient, and the community outside, and should she not also be an interpreter of the community and the patient's problems to the hospital administrators?

There should be discontent among administrators until they can get for their hospitals social workers who will give the best that can be given and discontent among social workers until, which will never be, they can fulfill their highest ideals.

I want to make clear at first that we believe our primary function is that of social work with patients. "Social case work" may be an unfamiliar term to some of you. I want you to understand what we mean by that. When we speak of social case work we mean a procedure that in principle is comparable to medical case work. Case work, whether medical or social, is based on a knowledge of the condition of the patient at a given time, an interpretation or diagnosis of the condition and the formulation of a plan of treatment, a plan that looks to the future and the fullest possible restoration of the patient. In social case work we see the patient in the hospital not merely as a medical problem, but as a member of a family group, an individual with many and various human relationships, to whom this medical condition may be simply an incident in the stream of his life, and our purpose is to see that, if possible, the patient is somehow better for this hospital experience. If not better physically, better spiritually; if he is to be restored to health, better because he has a new or renewed conception of the fullness of life; if he is to be a chronic invalid, with courage to face that fact frankly and squarely.

"Empathy" Essential in Social Service

As I am talking about the social worker, I am thinking not merely of a kindly person, who is interested in doing the friendly things that need to be done in any institution where people are accumulated. I am not speaking of social service as the "heart of the hospital." We have no claim to that. The nurses, the doctors, the administrators must exemplify that spirit in the right sort of a hospital. But I am thinking of the social worker as a person who is bringing some specialized knowledge and specialized skill to the complicated personal problems of the patient, problems that complicate the medical condition and hamper recovery. I am thinking of the social worker as a specialist in human relationships, with the community as her field and the patient in his community and family relations as her particular interest. To serve adequately the patient and the hospital, she must be endowed with some special personal qualities and trained in her field. But above all, she must care about and understand human beings of many kinds. She must have that quality of "empathy" which Dr. Southard so ably interpreted. He contrasted empathy with sympathy, as meaning not merely feeling for the patient, but the capacity of feeling oneself in the patient's place. The foreign-born and foreign-speaking patient in the hospital, who comes without knowing our language or our ways, alone, forlorn, often, of course, absorbed in his physical discomfort, needs that kind of understanding. The social worker's first task is to realize how that patient really feels, and to get herself into the attitude of really feeling the way the patient does. She must see his situation objectively, not with the prejudice of the sick person, but with the understanding of the sick person, seeing the whole situation more truly than the patient can possibly see it while he is ill. When we lose the vividness of our understanding of the patient, we have lost, I believe, the essential capacity that makes us useful in the institution where routine of procedure and thought are prone to develop.

Personal Relationship Restored

Some of our finest and most eminent medical men have rather resented the fact that the social worker has come into the hospital for this personal relationship with the patients. They have said the medicine, meaning doctors, cannot sacrifice that personal, human relationship between the doctor and the patient, that precious thing that is probably one of the strongest forces in the restoration to health. Let us agree that the loss of this relationship is most unfortunate, but may we not also agree that it is one of the inevitable sacrifices that has come with organized and institutionalized medicine as we now find it? The usual lack of continuity of medical service and the pressure of work on the visiting physician, as well as the impracticability of his knowing at first hand the

*Read at the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

home conditions of the patients, makes really vital personal relationship between the hospital physician and the patient very rare. I maintain that the social worker has come into the hospital because of organized medicine. And I see social work, I mean skilled social work, coming to organized medicine to restore in part that which has been lost, and to work so closely with the doctor in his case work that he is made conscious of those personal and human aspects of the patient's condition. The doctor must of necessity concentrate on the medical aspects of the case, but he should not be separated from the social side. If the treatment involves influencing the patient to change his habits or mode of life, the social worker may be the one to see that the plan is put through. But to be truly effective, she must do this in close cooperation with the doctor, her plan closely interwoven with his, so that the patient has medical-social treatment, which is an interweaving of both services, and not medical treatment here and social treatment there. Such work is possible only where there is skill on both sides, with mutual understanding and respect.

It is along the lines of medical-social case work that the strongest departments have been developed in hospitals. It was that conception that called us, as social workers, into hospital service. We went there because we cared about using our skill to help people in adversity. And, to my mind, social case work must always be the foundation on which any superstructure of other types of social service in the hospital can be safely built, for through the realities of our social case work we are always keeping vividly before us the challenge of real service to the patients. We are safeguarded from becoming routinists since we are constantly facing final results.

Tendency Toward Administrative Function

Now, as time has gone on, we find that there is a tendency to draw the social worker into various administrative functions in the hospital. There are some hospitals that very definitely recognize her as a part of the hospital administration. Are they doing this because she is a person who is ready to be useful to the patient wherever possible, or is there some special reason for doing it? Personally, I believe, on knowing more and more of the problems of the hospital administrators, that there are some phases of hospital administration wherein the trained worker, because she has specialized knowledge and specialized skill, may be of definite assistance.

The specialized knowledge of the trained hospital social worker ought to include an intimate knowledge of community life, and special knowledge of the community from which the patients come, the standards of living, the varied nationalities, the chief industries, the organized agencies, both public and private, for public health and community welfare. She should have a clear conception of the relation of the hospital to these other social agencies. She should be familiar with public health and social legislation that affects individual welfare. The skill of the social worker should make these facilities of use to the patients and the hospital.

Aside from case work, social workers have been called upon to assist in some distinctly administrative functions of the dispensary and the hospital. Among these is the admission of patients. There are among the administrators many skeptics who feel that the social worker should have no concern with admission of patients, that it is entirely a medical function. Certainly the social worker should have no concern with the medical suitability of patients for admission. No one would presume that. But is the judgment of the admitting officer chiefly a medical or a social one? The superficial medical judgment is checked up in the clinic. But the final decision as to whether the patient is economically suitable for admission, whether or not he should be admitted free, whether or not he should pay for medicine and x-rays, and, on admission to the wards, a fair rate of board—these are all decisions that assume some knowledge of the economic situation of the patient. Now there are hospital superintendents who believe that these judgments are best made by those who know something of the standards of living of the patients. Because these decisions must be rather hurried, do they not need to be based on pertinent knowledge?

Several hospitals have social workers at the admission desk. The Pennsylvania and Protestant Episcopal hospitals of Philadelphia have social workers who determine the board rate, and I understand from the superintendents that the plan is working well. The social worker at the admission desk is more common in the dispensary. The Boston Dispensary was one of the first to develop this idea, and Miss Janet Thornton's report on her work there is very interesting and instructive.* To those hospital superintendents who object to placing the social worker in the admission office I would suggest that they make use of the studies of family budgets and cost of living, as they have been studied by social workers who are working with these economic family problems.

Social Work Has Two Strategic Points

There are, I believe, two strategic points at which the social point of view is important in hospital administration. These are on admission and on the discharge of patients. It is at these two points that the hospital is making its most vital contact with the community. A thoughtful consideration of the stream of patients asking for admission helps the hospital to interpret the community's needs, and if we are to safeguard carefully the work the hospital has done, we ought to know something of the conditions to which the patient is to return.

One of the common requests that comes to the social service department is that of freeing the wards of chronic cases. In a survey we made a few years ago, almost all the departments reported that this was one of the special duties the administration had placed upon them. If freeing the wards of chronic cases is going to make it possible to admit other patients, it certainly is a proper thing for us to do. But there is one plea that I wish to make, and that is that the discharge of patients should not always be construed to be an emergency. This will have a familiar sound to hospital social workers. At two o'clock in the afternoon we have word that a patient must be gotten out that afternoon, or at least by the next morning. He lives in a lodging house twenty-five miles from the hospital, so that the routine discharge cannot care for him. The visiting physician has made rounds and suddenly discovered that the patient is ready to go out. They may want to take in some new and interesting cases for clinical teaching. But we social workers cannot always do good social work on the emergency basis. And I question whether a discharge need ever be an emergency. How can we anticipate discharge more definitely? Discharge means to us not merely the transportation of that patient to his home, but rather the application of our principles of social case work, which are to secure our facts before we act, and to make a plan with the patient, a far-sighted plan, and not just a temporary, makeshift one. The question of proper discharge of patients is cer-

*"Social Service and Dispensary Admission Service," THE MODERN HOSPITAL, April, 1919.

tainly a thing for us to help with, but if we are to help adequately, we ought to get at it earlier than just at the point of discharge.

Social Work Successful in this Ward

We have had a very interesting experience in one of our wards at the Massachusetts General Hospital, the orthopedic ward. A social worker is in charge of the orthopedic social work for the dispensary and the ward. There is continuous outpatient and ward medical service. The social service department is responsible for interviewing and making a plan for admission for every patient who is recommended for the ward. Previously the patient went to the admission desk, was told that there was a long waiting list, and that he would be notified when there was a vacancy in the ward. When the time finally came, notice was sent to the patient, but by that time the patient had probably gone somewhere else, or established himself with some quack treatment, or moved away. A day or two was lost in finding out all this, and then other patients were sent for. Thus several days of care in the ward were lost. Under the present plan, the interview with the social worker anticipates any possible social complication that might hamper the patient's coming in. We make the patient understand that it is going to be a little time before he can be admitted. We explain that it is not important for him to be admitted immediately. We get the nearest telephone number and make the patient realize that if he moves it is important that we should know, so that we can get immediate word to him. Then when a vacancy occurs, the social worker is notified and she gets in touch with the patient in the shortest possible time. The first year after the plan was started, there were 159 more days' treatment than there had been the year before. Such a plan means that the fullest use of the ward beds is secured.

Also, there are certain types of long-time cases, which the doctors are not operating on now unless there is a social plan for convalescence. The Albee operation, for instance, is not done by our orthopedic men unless, previous to that operation, social service has been able to plan a convalescence of six months or a year. That means hospital discharge at the earliest possible moment after the operation, thus relieving the ward for another patient. It is all a part of a plan, not just emergency work. It is real social case work for that patient. As to the removal of chronic cases, there are many interesting experiences among workers who have gone into hospitals. I know of one social worker who recently went into a hospital in Connecticut, and found three patients who had been in the wards for over a year, because no one happened to know where else they might be sent. That hospital was supposed to be for acute cases, but it seemed inhuman to turn them out. Within a month, these patients were all carefully placed by the social worker, who knew the community resources.

Patients Especially in Need of Social Work

There is one group of patients I want to plead for, and that is the patients "discharged against advice." I am always sorry to see that on a discharge slip, because I know there is always something back of it. Is it because of some social situation at home, because that patient had become worried and restless, and felt that he had to get home and go to work, or is it some misunderstanding in the hospital? Recently a Polish man was referred to a hospital social worker because he insisted on going home after a week in the hospital, although he was seriously in need of an operation. Through an interpreter, the social worker found that the man had anticipated only ten days in the hospital, and had left his wife only enough to pay for food for that length of time. The rest of his savings had gone to pay the hospital bill in advance. For various reasons of convenience to the surgical service, the operation had not been performed, but meantime the precious savings were being used up. With the fact in hand, the social worker arranged to have the patient stay and the family cared for. It always seems to me that the patient discharged against advice is a possible sore spot in the community that ought not to be there. I believe that the hospital superintendent should be assured that at least everything has been done that could be done to correct any misunderstanding that might have existed.

The patient who is refused admission to hospitals has also become a concern of hospital social workers. Several hospitals have assumed an attitude of responsibility for the patients who come to them for care. Patients come to a hospital without discrimination. They do not know its limitations. They think of it only as a hospital. Just as a patient who is looking for medical assistance may seek a doctor's sign, without any discrimination as to what kind of a doctor he may be, so patients will go to a hospital without any kind of discrimination. Is it not the responsibility of the hospital admission office to be sure that patient is guided to the place where he belongs? Two hospitals, at least, have assumed that to be a proper function for the social service department.

Place of Social Work in the Clinic

In dispensaries, social workers have been drawn into administrative functions in many of the clinics. As the doctors have worked more closely with the social service department, the tendency has been to ask that the social worker become as much a part of the clinic as the nurse, to make social treatment so much a part of the treatment there that the patient does not know where the medical work ends and the social work begins. There has been a tendency to absorb gradually the time of the worker in these clinics until she has become, in a way, an administrator of the clinic. She has been the one to see that the patient really went to the doctor, that the patient received the service that he came for, that the patient and the record together were ready for the busy physician, that the patient received the service that he came for. Because of the bulk of these duties, the social worker is often swamped in administrative detail. Is it properly a social service function, or are we trying to patch up poorly managed clinics? I believe we could well give this subject very careful study; indeed, we might at this point borrow from industries one of their methods which might be very helpful to us. I refer to the method of job analysis, of having a person with an analytical mind studying procedures in a given department, studying the whole problem there, seeing what kinds of functions are necessarily involved and the kind of people needed to perform those functions. We should then have a basis for the organization of the various functions. I think that job analysis applied to our clinics would reveal the place where the social worker, with her special knowledge, is needed, and whether some other kind of person is not also needed. At present, the administrative function of the social worker in the clinic is crowding out her social case work. She is too busy to get into the homes, to keep fresh and clear before her the social situation in the background. Thus she becomes an institutionalized person, and loses the biggest contribution she

has to give to the hospital, that of never thinking in routine, of keeping always fresh the community and patient's point of view.

Another phase of social work that has rather curiously and unexpectedly come to the social service department in a few cases has been in connection with the domestic personnel of the hospital. Hospital administrators are turning to social workers for help with superannuated employees, young girls employed in the hospital who may be facing pregnancy, employees who have become ill, perhaps chronic cases who need care, personal problems within the families of some of those employees, complicated, difficult social problems of broken families, delinquent children that are troubling the mother, and various difficulties that have come to the attention of those persons who are in charge of the personnel in the hospital.

Social Record Should Be Included

Then there is the question of the hospital record. It seems very strange that in many splendid hospital records, with the careful analysis of all the examinations, and the careful statements of the treatment of the patient, there is no statement of what happened to the patient afterward. What really was done to finish up the story? It seems to me that often the story begins where the records leave off. In many of the hospitals, the social case record has been summarized and placed in the medical record; the end results are sent to the record room to finish up the medical history, which often necessarily covers social as well as medical data. It is obvious that many new problems are coming to the hospital in its growing community relationship. Special emphasis is given to these problems in relation to tuberculosis, workmen's compensation and industrial disease, and the new venereal disease clinics. It seems to me that the test of this rather hasty legislation must come out of a real knowledge of what it means to patients who are the victims of these various diseases. And where can we get the testimony that should guide these policies, except out of social case work—the knowledge of what is happening to the individual patient? Is it not for hospital administrators to help determine the legislation, if it is to best serve their patients and the community?

Throughout, I believe, the hospital social worker must be an interpreter. We have thought of her as an interpreter between the doctor and the patient, and the community outside. I wonder if she should not also be an interpreter of the community to the hospital administrators?

I should like to make hospital administrators feel that they cannot be content without the very best that social work has to give, and that social workers should not be appointed in their hospitals until they can get people who are really bringing the best that social work has to give, not just friendly, sympathetic points of view, but specialized knowledge and specialized skill. We are very much interested in the survey of hospital work that has just been completed. Dr. Richardson, who made the field study, said she never saw such a lot of discontented people as our hospital social workers, none of them feeling that she is fully meeting the problems before her. I hope that the discontent, which, I believe, is a divine discontent, is something that is going to stay with us, and that we will continue to be conscious that we have a bigger thing than we can encompass, which ought nevertheless to stimulate us to seek the best that social work has to give to the increasing problems of the modern hospital administrators.

LO, THE POOR INTERN!

The hospital intern is generally conceded to have a hard lot. Responsible to attendants, to superintendents, to patients, to relatives; often (perhaps deservedly) abused by all; working, if he be at all conscientious, many hours a day; with blame for mistakes and often with scant praise for work well done; one may well wonder that the breed persists. Many months of the intern's career must be spent in doing what he himself is prone to call "scut work"—*i. e.*, urinalyses, blood counts, and all the rest of clinical pathology; or dressing the uninteresting surgical cases; giving anesthetics; and, all too often, "riding the bus." In these days of residents and assistant residents, many of the men just graduated from medical schools look askance at the hospitals which have installed the "resident system" and turn their attention to hospitals which are perhaps less desirable, on the ground that they can there "get more to do." This point of view is particularly popular with men seeking surgical internships. It is the fashion with even the least experienced to scorn the lowly hemorrhoid and to long for a chance to "do a gall bladder" or a hysterectomy.

What the intern wants (of course leaving the lazy ones out of consideration) is "plenty to do." He is tired of being taught, tired of standing round while other men prescribe, tired of pulling out stitches someone else has put in. He wants so much first-hand experience in the hospital that when he is turned loose upon the sick public, he will have confidence and ability enough to "get away with it."

Some hospitals cling to the idea that in the ambulance service the intern gets valuable first-hand experience in meeting emergencies. Requiring trained doctors to spend many hours a week "riding the bus" is something which more and more hospitals are coming to regard as foolish and unprofitable. For the intern who clings to the tail end of an ambulance is practically never called upon to use his store of medical knowledge. A little common sense, presence of mind, and the ability to tell whether or not a case really requires hospital care are the only qualifications which rank the "ambulance surgeon" higher than a footman. Many progressive hospitals are clearly demonstrating that drivers or orderlies with a working knowledge of first aid can do creditable and satisfactory work as ambulance surgeons. Thus the intern is kept in the accident and admitting rooms, where he spends more time on his cases than he does on street traffic. Only a chance emergency obstetrical case would require the presence of a doctor; and this could be very well provided for without such unwarrantable loss of time as on the ordinary run of ambulance cases. When an intern in any of our accredited hospitals, with first class attending physicians and surgeons, begins to complain of having too much laboratory work to do, or of having too little responsibility, the voice of his complaint may well merit little consideration. Given honesty and industry on his part, his internship will be as profitable as he could wish. But when he begins to complain of being obliged to waste his time and energies on the city streets, hospital authorities may well listen to him, or else keep silent when they find themselves equipped with second-rate intern staffs.—*Medical Record*, December 11, 1920.

Emergency relief stations for supplying fifty-four Vienna hospitals and children's institutions throughout Austria with drugs, clothing, and sanitary appliances have been established by the American Red Cross in Vienna and Budapest. Maj. Robert Davis is director of relief service.

NEW ZEALAND ARCHITECT GIVES IMPRESSIONS OF AMERICAN HOSPITALS

MR. G. W. ALLSOP, architect to the Auckland Hospital and Charitable Aid Board of New Zealand, took an eight months' trip through Canada, England, Ireland, Scotland, France, Switzerland, Italy and the United States, and now from New Zealand he writes some of his impressions of American hospitals.

His object was to inspect modern hospitals and note their general design, the materials used for internal finishings, the design of sanitary fittings and how installed, the cooking fittings, and the multiplicity of other matters common to all hospitals. Having spent five years in London studying hospital design, and obtained his degree by taking this as a special subject, being architect to four hospital boards, and having devoted practically all of his time to hospital work during the last fifteen years, he would seem to be qualified to express an opinion upon what he has seen. He has done so in the following way:

"In New Zealand, where we have a beautiful climate, we give great attention to flooding our wards with fresh air and sunlight; we also give great attention to cross ventilation of wards and sanitary towers. Our medical authorities are great believers in the curative properties of daylight, sunlight, and fresh air.

"In the American institutions that I saw, about twenty of them, I noted a great absence of all these points. No doubt your severe climate influences your cross ventilation, but your wards impressed me as being dull and cheerless. I noted that the area of window space was considerably less than the area of wall space. There is no reason why this should not be reversed (as in our hospital); then your patients would have the benefit of the curative properties of more daylight, sunlight, and in the mild weather, of more fresh air.

"All windows should have fan lights over two feet deep, hinged at the top, swinging outwards. Most of your windows have no fan lights; of the few that had, I never saw one open. Again, I noted a considerable space between the tops of windows and ceiling; this means a pocket of stagnant air. Obviously this space is of no advantage to the patients and adds considerably to the cost of the building. We always carry our fan lights to within three inches of the ceiling. Our authorities allow twelve hundred cubic feet of air per bed, and will not allow any measurement of height above the top of the fan light. When fan lights are hinged at the bottom and fall inwards, the air, carrying a certain amount of dust, is turned up to the ceiling, and gradually discolors it; it also causes down-draughts on the patients. This is obviated by putting cheeks at the sides; then a pocket is formed, and I have seen dust over two inches thick lying at the bottom. Now, obviously, when a strong wind or gust blows, this dust is carried into the wards. But when the fan light is hung at the top, it swings out and forms a hood over the opening, preventing the rain from beating in, and the air is not deflected onto the ceiling or patients, and no dust accumulates. I have installed hundreds of these, and many of them with us stand open all the year round, except when wards are being fumigated. Again, we place every bed between a pair of windows in all wards, whether of one or more beds. This gives more light and air to each patient. I note you do not study this point.

"Many of your hospitals have chutes for soiled linen and some for rubbish. With but one exception, they all had small doors opening into the corridors or passages. The advisability of this installation is, in my opinion, doubtful. When chutes do not exist, the custom is to place the soiled linen in bags, and these are taken away by the porter. If the chute exists, the soiled clothes are carried to and dropped down the chute. It is admitted, and can be seen, that the chutes become soiled; then, as the air inside the building is warmer than outside, these chutes become inlet ventilation shafts every time a door is opened, or when doors are carelessly left open; consequently, air ascending this fouled chute is discharged inside the building. The fact of a cold shower being fitted at the top of the chute is no guarantee that the walls will be thoroughly cleansed. I did not find them so. It is not advisable to study the saving of a small amount of work of the nurse or porter to the detriment of the health of the inmates. If the chute be omitted and a small room provided near the lift for soiled linen, it should meet all requirements, and would cost considerably less. In the Ross Pavilion, at the Royal Victoria Hospital, Montreal, I was informed these chutes were omitted intentionally, and in my opinion this is the best designed hospital building in Canada.

Modern Hospital Radiators Not Used

"While all your hospitals have a large number of radiators, steam or water, I did not see a single instance of a modern hospital radiator in use. The radiators consisted of two or more columns in a section, the sections were in most cases close together, no wide space being provided for cleaning; the radiators were fixed to the floor and close to the wall, so that it was very difficult to clean under or behind them. The hospital radiator we use has one column in a section, each section spaced wide apart for ease of cleaning, and the radiator fixed nine inches up from the floor to a bracket screwed to the wall. The radiator swings on this bracket like a gate, and can be pulled out from the wall at right angles, so that the cleaning of the floor, wall, and back of the radiator is a matter of simplicity. These gate radiators have been in use for many years. I installed many of them years ago, also recently, and they are quite satisfactory. Radiators are not ideal fittings to install in operating rooms, owing to the many recesses forming lodgment for dust and germs. This can be overcome to a great extent by slipping over the radiator white linen covers; these can be washed frequently, they look well and serve a useful purpose. In three hospitals, only, did I see them in use; they could, with advantage, be installed in all.

Sanitary Fittings Could Be Improved

"In the sanitary fittings, such as bed-pan sinks, sinks, and lavatory basins, I was disappointed. Most of the fittings I saw were similar to those used in domestic buildings; special fittings for years past have been designed, catalogued and installed in hundreds of British hospitals. All of the specially designed fixtures are supported on brackets, built into the wall, no portion rests upon the floor; they have no legs, consequently it is a simple matter to clean the floor under and around them. In no hospital did I see a urine bottle washer attached

to the bed-pan sink. This is very useful, it cleans the bottle thoroughly and quickly, and prevents the nurses having to do this in the old fashioned way. In some hospitals there was no rising jet fitted to their bed-pan sinks.

"In one large hospital I visited in Canada they had the most remarkable fitting for a bed-pan sink I have yet seen. On the floor was fixed a cast iron trap and from this arose a cone four inches wide at the bottom and about twenty-four inches wide at the top; the height was about thirty inches. Over the cone and about two feet above it, was a tap with a piece of rubber hose attached. The cone was made of copper, polished inside and out, and the appearance was very nice, but a more unsuitable, out of date, and obsolete apparatus I have never seen installed, and hope I never shall. There was no flushing rim, no rising jet for washing bed pans, and no bottle washer. Why the medical and health authorities allowed it to be installed in a new building is beyond my conception. They are installed in operating rooms and all sanitary rooms; there are a large number of them in the building, but in all fairness to the nurses and patients, they should be taken out and replaced with modern fireclay sinks with all fittings as I have previously described. It will be obvious from this that a building may be of recent erection but not modern. I was told this fitting was a copy of those used in a hospital in the United States. I did not notice them in your country, but of course time would not permit me to visit all your hospitals.

KEEPING UP WITH ADMINISTRATIVE PROGRESS*

By HAROLD W. HERSEY, M.D., Superintendent, The New Haven Hospital, New Haven, Conn.

DURING the past five or six years business activities of all kinds have been conducted under abnormal conditions. Briefly, these conditions include inflated wages, unsettled labor conditions, scarcity of manufactured products, uncertainty in their delivery, readjustments in social conditions, and a continuous shrinkage in the value of the dollar. The position of the business executive has in consequence been one of extreme tension, requiring constant vigil and unwonted caution.

The hospital administrator has had his full share of these difficulties. Indeed, with the less favorable financial conditions under which he "carries on," his burden has at times been extreme. There is an old saying that "misery loves company," and while the position of executive is usually of one's own choosing and should in no wise be likened unto a bed of thorns, the deduction is that in difficult times one should consult with his confreres and profit by their experience. How many of the various business executives may be considered as confreres and how much we may profit by their observations is one of the purposes of this paper to discuss.

Dean Johnson of the New York University School of Commerce states that business may be divided into three classes: "*first*, the production and sale of goods—this kind of business is commonly known as industry and embraces all kinds of manufacturing; *second*, the purchase and sale of commodities (by commodities is meant anything which has value and is therefore salable); *third*, the purchase and sale of services, whether the services of human beings or the uses of material things."

Primarily, the object of all hospitals is to render to those incapacitated by illness or injury, a highly specialized type of service. Economically, the purpose of the hospital is to restore to the community an individual as nearly physically sound as possible, in the shortest period. It is the thoroughness of this restoration, in consideration of the time expended, which denotes the degree of efficiency of the hospital. Since the hospital deals with service, it falls into the third group of business.

No duties are more exacting than those of service, and in none is the organization more subject to criticism. It is necessary for the executive to avail himself of every method and every opportunity to check up his organization and to see that it ranks high in efficiency and production when compared with the standards set by representative organizations elsewhere. In order to make these comparisons it is necessary that definite standards of comparison be available, that one visualize the comparisons, and keep in touch with the business progress of the outside world.

Efficient hospital service requires of the executive broad knowledge and deep understanding of both medicine and business. The officer must be a planner and an organizer. He must possess a working knowledge of mechanical and electrical engineering, heating, lighting, and refrigeration. He should be a thorough accountant, a careful and conscientious buyer, a systematic storekeeper, and have a thorough knowledge of modern laundry, kitchen, and house management. But above all, he must deliver from his organization medical and surgical service of a high order, conforming in every way with accepted standards.

Medical and Surgical Organization Progressing

Let us first turn our attention to the medical and surgical organization. Medicine itself has made rapid progress and the ideas of today are not the ideas of yesterday. Medical and surgical technique have improved, specialties have developed, diagnostic and therapeutic measures have advanced, preventive medicine and public health have become established. In the field of nursing and the training of nurses a large problem has arisen, for modern medicine requires more careful attention to nursing detail, while the long hours and menial tasks formerly expected of nurses no longer seem just. Coupled with the fact that other occupations and professions offer definite hours and congenial surroundings with early remuneration and in consequence fewer applicants are received by the training schools, the nursing problem is requiring the best efforts of both hospital executives and superintendents of nursing. We hear many solutions of the nursing problem and much discussion. In my judgment, any readjustment tending to lower the nursing standards will fail in accomplishment. In order to attract a desirable type of young women into the training schools, we must offer something better than at present, be this fewer hours of duty, more congenial surroundings, or a more highly specialized training. I believe that before many years a university degree for nurses will be available at many hospitals through affiliation with universities.

Much has been written about hospital standardization and it has been widely discussed. Much more should be written and greater discussion encouraged, for the medical organizations, although vastly improved, are in

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

many instances a long way from perfect. An excellent organization exists in the American College of Surgeons and the work contributed by them has done much to stimulate many hospitals to renewed efforts. Organized at Washington, D. C., in 1913, among the purposes being "the betterment of medical education and of the clinical practice of medicine," it has already accomplished much that is beneficial and has accumulated valuable data. Its chief effort for the hospitals has been to establish a minimum standard that every hospital may hope to attain. Briefly, this standard calls for an organized staff of reputable, competent physicians and surgeons. Monthly meetings should be held at which the clinical work of the staff, both successful and unsuccessful, is openly discussed and analyzed, with a view to preventing a repetition of mistakes and profiting by the success of others. Accurate and complete records should be filed and adequate x-ray and clinical laboratories maintained. It is interesting to note that a survey made by this college in 1918 and 1919 shows that of 671 general hospitals of 100 or more beds in the United States and Canada only 198 meet the minimum standard.

It should be the duty of every hospital executive constantly to bring before his board the necessity of conforming with these minimum requirements and to relinquish his effort in no wise until the medical organization is so founded. The hospital which falls short of its duty to its patients in guaranteeing efficient and modern treatment cannot hope to attain high rank or to hold itself above reproach.

So much for the medical and surgical organization. Let us now consider the business organization. Within the past decade it has been recognized that business is a science and that its phenomenon could be explained by certain laws, just as the phenomenon of physics and chemistry could be explained by certain laws. The universities finally awoke to the fact that it was just as essential to graduate students well grounded in business principles as it was to train young men in the fundamentals of arts, language, law and medicine. At present schools of business administration are established in many of the universities, among them the University of Harvard, Pennsylvania, Michigan, Illinois, New York, and others. Unfortunately for most of us, these schools have developed too late for us to avail ourselves of the splendid training thus offered; but this fact merely means that our efforts to keep in touch with business progress and administration must be along well organized lines, always with a definite purpose in view.

How may such efforts be most productive? In my judgment there is no better way than by securing some well recognized course in business administration and devoting a definite period weekly to its study. Right here I wish to say a word of warning. In any reading of this sort there is much that is good and much that is of little value. To obtain the best results, recognized authorities should be consulted, men broad in mind and purpose associated with leading universities or institutions. There are many good courses on modern business. One of the best that I know of is the course of the Alexander Hamilton Institute. A few hours weekly spent in its reading cannot fail to stimulate any executive to a broader conception of business principles. It is fair to add that these volumes are in the offices of many of our leading industrial executives.

There is another reason why the hospital executive should make every effort to keep in touch with business methods, and outside business in particular. As the older men retire from the executive boards of the hospital, the tendency is more and more to replace them by young, energetic business men. In order to convince them that new steps in the hospital organization should be carried out, the hospital executive must present his facts in convincing hole-proof statements. He can do this only by a thorough knowledge of business principles.

Comparisons of Other Institutions Efficacious

Admitting, therefore, that a knowledge of outside business is absolutely essential, let us now proceed a step further and consider a large industrial plant. During the past few years I have been fortunate enough to visit several. The procedure in all well organized plants is much the same. You enter a clean, orderly corridor and immediately are met by an attendant who offers service. Telephonic communication is established with the executive you are to visit and a messenger shows you to the office. After a brief statement of the departments in which you are interested, you are personally conducted through the shops, power plant, storerooms, accounting, and statistical departments. You make mental note of one thing after another. Later, in the seclusion of your own office, you find that many of their methods may be applied to your own organization. You recall, for example, that each line of pipe from their power plant was of a distinguishing color, that their organization perhaps exceeded yours in courtesy or promptitude, or that their statistical department contained data valuable to you. This same method of visiting and comparing should be carried out at frequent intervals in other industries, and is applicable to large hotels, restaurants, dining halls, and commercial laundries.

Last year I made a tour of the Middle West and of Eastern Canada, visiting, during that survey, nineteen of the leading hospitals, asking numerous questions (as any of the nineteen executives will agree) and collecting valuable data. My reception was most cordial in every instance, and the material obtained has been of tremendous value to me during the past year.

In the American Hospital Association is one of the greatest powers for good available to one interested in hospital administration. It is the privilege of everyone in charge of a hospital to become an active member of this organization and the alert executive will avail himself of this privilege. In no way can the executive better keep abreast of the times than by attendance at such meetings. It should be the duty of the hospital superintendent to attend these annual conferences. It should be the duty of the executive board to send their superintendent to these meetings, to insist upon attendance during the full meeting and to see that the expenses for attendance are defrayed by the hospital. The amount expended will be returned to the hospital ten-fold by increased efficiency and energy. Just as the executive should represent the institution at the conference of his association, the superintendent of nurses should attend the conference of the National League of Nursing Education and the dietitian should attend the meeting of the American Dietetic Association.

In New York and in many other large cities there is frequently a hotel men's conference and exhibit. Since hotel management has many problems in common with hospital management, much may be gained by attendance at these exhibits.

For many years a group of representative hospital executives have met occasionally during the year in Boston and after dinner a round-table for the discussion of hospital problems has been held. A similar organization has met in New York. These afford one of the best

methods of getting together and similar meetings should produce results in any part of the country. The state organization is on a similar plan. In Connecticut we have recently organized the Connecticut Hospital Association and expect to accomplish much this coming winter.

No executive can decide wisely unless he knows the actual conditions in his plant. He should, therefore, inspect all his departments at frequent intervals and should have daily reports from and conferences with the head of each department. This cooperation may be carried further by monthly meetings between the resident staff and the executive staff for discussion of purely administrative problems. With the resident system, many of the men have advanced from service as intern to assistant resident or resident and these young men look at the hospital with the eye of an executive. Their criticisms are just and their arguments sound. I have found such meetings of great benefit. At the Massachusetts General Hospital, before the war, we had a fair sized executive staff and during the winter held weekly administrative conferences. The discussions were of great value to all.

Scientific Principles of Business Employed

More and more the business world has come to represent its dealings by the graphic method or charting. By charts one is able to lay his facts before others in a convincing manner and this is the real purpose of collecting data. The large industries chart their departmental wages, their total pay roll, their production, the amount of stock on hand, the stock withdrawn, the turnover in labor and many other things. Charting is used by all banking concerns and by all statistical bureaus. It is absolutely essential for every man to become interested in financial conditions throughout the world and not only to understand the various types of charts but to be able to chart his own business transactions. At the New Haven Hospital we have recently been charting some of our daily procedures, such as admission and discharges of patients, operations, number of nurses' of various groups on and off duty, monthly expenditures, receipts, and the like. Charting is applicable to almost any phase of hospital administration, and we expect to work out a small number of charts which will require but a few minutes time daily and put us in closer contact with conditions.

Emerson in his "Twelve Principles of Efficiency" gives as the third principle, "competent counsel," and states that competent counsel is necessarily derived from many minds. It is sometimes advisable when a department is not running smoothly to call in and consult an expert in the particular branch concerned. The value of this is two-fold. It allows the executive to view the situation through other eyes and lends weight in presenting arguments to his administrative board. On my last visit to Baltimore, Dr. Smith informed me that he had just completed a survey of his laundry, by a laundry expert, with the result that they had installed new machinery and had, consequently, increased the efficiency and reduced the pay roll. Through the courtesy of a large industrial plant, the New Haven Hospital has recently had a survey made by experts from the various departments of that highly efficient organization. The report submitted contained the opinions and recommendations of men highly trained in accounting, business efficiency, engineering, store-keeping, and hotel management. It is too early yet to state what the result of such a report will be, but it contains many recommendations of value and I anticipate that much good may result. It is quite possible that other hospitals could arrange for a similar survey to their advantage. Certain it is that I have always found industrial executives willing and anxious to cooperate in every possible way and I believe that all hospitals would profit by a closer affiliation with leading industrial plants.

The various agricultural colleges and chambers of commerce publish daily or weekly market bulletins stating the receipt of market commodities and the prevailing prices. These bulletins may be obtained at little or no expense and are of value to the buyer in securing advantageous prices. The Hospital Bureau of Standards and Supplies of New York affords another excellent opportunity for the buyer to keep in touch with current prices and to purchase at an advantage. The purpose of this organization, to quote from the organization agreement, is "cooperation in establishing uniform standards as to quality and kind of supplies—and of purchasing the same in accordance with definite specifications under continuing or other general agreements." It is quite possible that if similar organizations were established in other parts of the country, similar beneficial results would accrue.

Certain statistics are required in every hospital in order to keep in touch with the various sources of income and of expenditure. Most hospitals have these statistics in various forms. Most institutions issue an annual report containing valuable data. These reports and statistics should be and are exchanged and studied by the various executives. And yet in collecting hospital forms and data, what a variety of methods, shapes, sizes, and colors one encounters. Each hospital has worked out its own system in accordance with its needs. No two accounting systems will be exactly alike, some being on one basis, some on another. Does it not seem odd that with hospitals conducted so nearly on similar lines, no more uniform systems of statistics and accounts are available? How much greater benefit would result, and how much greater would be the ease and satisfaction in comparison, if a group of hospitals, similar in purpose and size, would standardize their accounting systems and statistical forms and exchange weekly statements. I know of no way in which more valuable data could be obtained.

Although the board of directors of the average hospital has seen its annual deficit steadily mounting during the past few years, the more conservative have viewed with skepticism the advisability of a public appeal for funds, or a drive as it is commonly called. I do not share this feeling and see no reason why the support of the hospitals should fall upon a few. It should be as much the duty of the citizens to support the hospitals as it is to maintain the public schools, public libraries, the highways and water systems. Every citizen should put aside annually a sum for hospital support, as he would for society or club dues. The weekly expenditure of the average family for soda and moving pictures, if totaled and proportioned to the hospitals, would maintain modern institutions of the highest order. Such a contribution would work no hardship. The average citizen, however, would never entertain such a proposition, even should he have assurance that the chances were 100 to 1 that he would shortly become a patient in the hospital. He would gamble on the one chance and let someone else bear the burden, trusting to fortune that an institution of high order would be available, should he need it. I believe that the state of Iowa had legislation enacted by which a small amount per person is set aside from its taxes to care for the indigent poor. Other states may have a similar arrangement. I am not familiar with its workings. If there are executives present from Iowa it would be interesting to learn its advantages and disadvantages.

Last year the directors of the New Haven Hospital conducted an intensive drive of one week's duration. The response of the New Haven public was most generous and $233,000 was realized. The expenses of the campaign were approximately $10,500. In our own case, therefore, the hospital drive has proved both feasible and beneficial. It should be carefully considered elsewhere.

Some hospitals conduct courses for those wishing to train as hospital executives. The advantage to an instructor in conducting classes is recognized, for in order to present new facts of interest to his students an instructor must know and review his subject at frequent intervals. Added to this is the stimulus derived from the questions of the students. A six months course was formerly given at the Massachusetts General Hospital. Two applicants were accepted for each class and spent their time observing and doing actual work in different departments. This afforded an excellent training for the applicants, usually young women, and most of them are today holding desirable positions throughout the country as hospital executives.

I now turn to the part literature should play in this subject. The magazines useful to the hospital executive may be considered in three classes.

Medical magazines. Foremost in hospital administration is the fact that we are dealing with a highly organized specialty, the care of the sick. There are numerous well recognized medical publications and I will not attempt to suggest those most beneficial. Each executive should choose the one best fitted for his guidance. The tendency of most of us is to treat medical literature slightingly and to devote our time to numerous other problems, but we should at no time lose sight of the high ideals with which we are associated and should steadily increase our knowledge thereof.

Magazines of hospital administration. The two principal magazines edited in the United States on hospital administration are too well known to require much comment. The progressive executive can ill afford to be without one or the other, or both. There is also a valuable Canadian and a British publication. These could be made more useful if the publishers wrote annually to the subscribers asking in what manner they could best be served during the ensuing year.

Magazines of business administration. There are numerous good publications of business administration. Those I have found most useful are *System, Industrial Management*, and *Factory*. All contain timely articles. Many banks issue a weekly or monthly letter, such as the pamphlet issued by the National City Bank of New York, summarizing financial conditions. *The Magazine of Wall Street* is also of considerable value. In Massachusetts no one can maintain financial serenity without constant reference to the *Boston News Bureau*. There are many similar publications in other cities, which require but a few minutes atttention daily.

The books dealing strictly with hospitals and their management are few. The two most recent contributions which have come to my attention are "Dispensaries, Their Management and Development," by Michael M. Davis, Jr., and Andrew R. Warner, M.D., and "The American Hospital of the Twentieth Century," by Edward R. Stevens. There are doubtless others.

Finally, a word as to the library of the hospital executive. Each executive must determine his own requirements. It is usually admitted that a library does not represent the reading done by its owner, but enables him to consult competent authority when in doubt. In the September number of THE MODERN HOSPITAL are two articles of unusual interest. One is by S. S. Goldwater, M.D., entitled "Self-Education for Hospital Executives." The other is an editorial stating in brief that the Modern Hospital Publishing Company is about to publish a series of practical handbooks and has secured Dr. S. S. Goldwater as editor-in-chief. Both of these are progressive steps capable of much good. I shall not attempt here to outline a library but merely wish to mention a few books I believe the library should contain. As stated elsewhere, there should be a thorough business course. In addition I would suggest:

"The Organization, Construction and Management of Hospitals," Ochsner & Sturm. (While not recent, this is still very valuable.)
"The Modern Hospital," Hornsby & Schmidt.
"Accounts," William M. Cole, A.M.
"Elements of Accounting," Joseph J. Klein.
"Cost Accounting for Institutions," William Morse Cole, A.M.
"Corporation Finance," E. S. Mead, Ph.D.
"The Executive and His Control of Men," Enoch B. Gown.
"The Principles of Scientific Management," Frederick Winslow Taylor.
"Twelve Principles of Efficiency," Harrington Emerson.
"Personal Efficiency," Harrington Emerson.
"Production Factors in Cost Accounting and Works Management," A. Hamilton Church.
"Graphic Methods for Presenting Facts," Willard C. Brinton.
"Men Who Are Making America," B. C. Forbes.
"Purchasing," C. S. Rindsfoss.
"Modern Business Law," Edward W. Spencer.
"Hospital Accounting and Statistics," William V. S. Thorne.
"The American Hospital of the Twentieth Century," Edward R. Stevens.
"Dispensaries, Their Management and Development," Michael M. Davis, Jr., Ph.D., and Andrew R. Warner, M.D.

From the above paper we may draw the following conclusions:

First.—Business administration has made marked progress during the past decade and has lately been conducted under abnormal difficulties.

Second.—Hospital administration falls properly into the group of activities known as service.

Third.—In order to render to patients the service which they may reasonably expect, the hospital executive should (a) develop the medical and surgical organization in accordance with the organization of other recognized institutions and with particular reference to the suggestions of the American College of Surgeons; (b) develop a business organization in accordance with modern ideas of efficiency.

Fourth.—A persistent study of modern business principles should be made.

Fifth.—Other hospitals and industrial organizations should be frequently visited and studied.

Sixth.—Executives should join and take active part in medical, administrative, and civic associations.

Seventh.—Combined local activities are of great value among hospital executives.

Eighth.—Daily reports from and consultations with departmental heads, supplemented by personal inspection of departments, is essential.

Ninth.—A practical knowledge of graphic methods of presentation should be acquired.

Tenth.—Competent counsel should be consulted when necessary.

Eleventh.—The information from statistical bureaus should be available.

Twelfth.—Every effort should be made by the administrative board to stabilize the hospital finances.

Thirteenth.—The systematic reading of publications dealing with medical and administrative problems is essential.

Fourteenth.—A program of self-education should be outlined and an administrative library of recognized authorities acquired.

In conclusion, may I say that I realize the above program necessitates considerable reading, but by a systematic arrangement of hours ample time will be found after regular duties for study and essential recreation.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
122 W. 85th Street, New York City

HOSPITAL HELPERS*

BY CLARIBEL A. WHEELER, R.N., PRINCIPAL, SCHOOL OF NURSING, MOUNT SINAI HOSPITAL, CLEVELAND, OHIO

IN BRINGING to your attention the subject of hospital helpers, I am presenting by no means a new subject, as women rendering the service now designated by this title have been employed in several of our hospitals for many years. This type of worker has, however, not been definitely recognized, nor has her economic value been fully appreciated. Recently we have heard considerable about the ward attendant, the ward assistant, or the hospital helper. The last name is perhaps the most appropriate, as the duties of this group are not confined to hospital wards, but they are employed in all parts of the hospital.

I was requested to present this subject, not as an authority on hospital helpers—I doubt if there be such at the present time—but because of the fact that in the hospital with which I am connected we have employed such assistants for several years with more or less success. I simply wish to give you some of the results of our experience with them, and trust that this short paper may serve to bring out helpful discussion on the subject.

Helpers Supply Several Acute Hospital Needs

The growing need for the hospital helpers is obvious; the increased number of hospital beds paralleled by the increased demand for nursing service, and the recent dearth in the number of applicants entering schools of nursing, have made it necessary to look to some other class of worker to assist in giving the sick adequate service. It is, perhaps, a good thing that this situation has arisen, in order to bring to the attention of hospital authorities the fact that women who are not highly skilled can do certain things, which never should have been delegated to student nurses, who are in hospitals to study the science of nursing and not to perform tasks of no value to their training. With the shortage of students in many schools, it has become necessary to employ graduate nurses, and the folly of paying these women to dust rooms, arrange flowers, and carry trays is at once recognized.

Various measures have been sought to remedy this situation, one of the most notable being the plan for training and registering attendants, a class of women to care for the sick. Laws governing such a practice have already been passed in New York State. Whether a second class nurse is needed is a debatable question. Many leaders in the nursing profession, as well as physicians, hospital superintendents, and lay people, believe that the untrained attendant is a step backward, especially as medical science is rapidly advancing and great strides are being taken in the protection of the health of our people. To keep pace with scientific medicine and properly to carry out new health measures which are constantly being enacted by law, we need better educated, better trained nurses than have been needed before in the history of the world. It seems hardly wise or expedient to delegate bedside nursing to those who are not properly fitted by education and training to carry out the technical procedures now considered essential. Other ways, such as the development of a more extensively paid visiting nurse service, and the establishment of an hourly nursing service by private duty nurses, seem more worthy of consideration. Certainly in hospitals the attendant is not the person whom we are seeking; the helper does seem to meet the situation fairly well.

Functions of Hospital Helpers

The distinction between hospital helpers and ward maids is not clear in the minds of some people. When we look at the type of ward maids found in the majority of our hospitals today the difference is easily detected. Surely this woman who scrubs floors and cleans hoppers cannot come into any very intimate contact with sick people; she is usually Italian, Polish or colored, and she often speaks very little English. In most of our hospitals the ward maid is under the jurisdiction of the housekeeper instead of the nursing department. The hospital helper, on the other hand, must necessarily be a woman of better type; she must speak English and present a good personal appearance. She is an adjunct to the nursing service which is a distinct advantage, as her tasks are much more intimately connected with nursing than are those of the ward maid.

The work which can be delegated to hospital helpers is not to be confused in any way with nursing; the tasks performed by them, it is true, have heretofore been done by nurses, but they were not nursing procedures. They are the things which have warped and narrowed the training of the student nurse by their ceaseless repetition, and have prevented her from receiving more important practices, as well as having been instrumental in prolonging her hours of duty. It is true that student nurses should learn the science of cleaning paint, marble and brass; that they should be taught how to serve trays, arrange and care for flowers and make beds; it is necessary, however, that they repeat these things throughout three years.

Hospital helpers may be taught in the wards to dust

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

beds, stands, and window sills, to clean utility rooms, to make empty beds, to disinfect beds, to put in order private rooms after patients have gone home, to arrange flowers, to fold and put away linen, to assist the nurses in serving and carrying trays, to run errands for the ward. They are useful in the nursery to assist in many ways in the care of the babies. In the operating room they can be taught to clean instruments, to wash and mend gloves, to sew on buttons and tapes, to make and put up supplies for sterilization, and a hundred such details too numerous to mention. All surgical dressings for the hospital can be made by them, for it is a useless waste of time to require students to pull washed gauze and to make up dressings. The admitting room has a place for the helper, also, as here she can be taught to assist in the admission of new patients, giving baths, listing and putting away clothing, etc. She may become a useful assistant in the out-patient department, where it is often difficult to secure an adequate corps of assistants, and where nurses often spend hours on useless detail. In fact, there seems no place in the hospital where nurses are employed that these helpers cannot be used to advantage.

Conceded that the helper is an essential individual in the present day hospital, the question is, Where are we going to find her? How are we going to retain her when once captured? From personal experience the helper may be found in three rather distinct classes. The most common and the most dependable are young women from eighteen to thirty years of age, who have a real desire to be associated with sick people; but who do not possess the necessary educational qualifications for entering training. If this group can be sufficiently impressed with the fact that they are rendering a much needed service and are really instruments in caring for the sick, they may be satisfied to remain for a considerable period of time in the hospital. The second class is composed of high school girls desirous of earning something during the summer vacation. Many in this way become interested in nursing and decide to take the nursing course. We have had several who have in this way become interested in our school. The last group are women who perhaps do not have to work for a living; but have taken the Red Cross courses in hygiene and home nursing, and are willing to come into the hospital in time of an emergency or epidemic or even for the summer to relieve for vacations. Several such women have served in Cleveland hospitals during the past summer.

In most hospitals, as in our own, I believe, the helpers are taught by the head nurses. It would seem feasible and advantageous to instruct them in the principles of hygiene, the art of cleaning and folding linen, the care of flowers, etc., and to demonstrate to them the procedures required of them. These classes could be given by the instructor in nursing methods. Without doubt this instruction would give them an added interest in their work and would make them feel that it was more worth while. Another advantage would be their uniform training.

A distinct uniform for the helpers is, of course, necessary, but it is a question whether they should be supplied by the hospital or provided by the helper. Most hospitals supply uniforms to maids and porters and could furnish them equally well to the helpers. A plain wash dress with white collar and apron seems most desirable. Rubber heels on shoes should be required.

The housing problem seems to be a difficult one for this group, as they cannot be housed in the nurses' residence and they do not fit in well in the servants' quarters. In most places they live outside the hospital. One or two meals are provided and the uniforms are laundered by the hospital. There seems to arise a question as to where they shall have their meals served. In some places they eat in the nurses' dining room, in others in the employees' dining room. In our own hospital they are served in the employees' dining room, but not at the same time as the other employees.

Salaries for this class of worker seem to vary; but from what I can learn from hospitals employing them, they are paid anywhere from $35 to $60 per month for eight hour duty. It would seem unreasonable to ask any woman to do such work for less than $55 or $60 per month, and institutions paying less than this will have trouble in securing them.

Without question, there are many disadvantages in employing hospital helpers. In the first place, they are hard to find, which is, of course, equally true of finding orderlies, waitresses, and ward maids. Advertising in the daily papers, applying to agencies and securing them through the hospital social service department seem the best methods. As has been mentioned before, housing them presents a serious problem, as does the serving of their meals. It is also asserted that some of them go out and pose as nurses, charging nurses' fees. This is nothing new, however; hundreds of untrained women are doing it constantly, and will continue to do it until proper laws have been made for the protection of the sick public. It must be remembered that the helper does no actual nursing and should be made to understand clearly her relation to the nursing department.

It would seem that the advantages of employing helpers far outweighs the disadvantages. In hospitals where graduate nurses are employed it is certainly cheaper to employ helpers to perform household tasks than to require nurses to do them. In others, where the burden of the nursing service falls upon the student body, the helper is a factor in relieving the pupils of much unnecessary routine, and in shortening their hours of duty. Young women eligible to schools of nursing may in this way become interested in later taking the regular nursing course.

The helper seems to have become an essential part of the hospital personnel; she is a decided asset to the nursing department, as she relieves the skilled worker of unnecessary details; she is a valuable factor from an economic standpoint. Consequently, greater consideration is shown her, her life will be made pleasanter, and the service she renders greater.

SHORTER HOURS FOR NURSES A DIFFICULT PROBLEM

"To institute legislation for restricting nurses' hours is to lay hands on a very delicate piece of mechanism," thinks *The Hospital*, an English publication. "It seems to us impossible to introduce a hard and fast rule of forty-eight hours a week to apply to every kind of nurse under every kind of condition. Certainly for private nurses and those in institutions the fortnight seems the better period of limitation. Is there not room for some discrimination of work? Eight hours spent in the operating theater, in the casualty department, in massage, is a widely different day's work from eight hours spent in varied duties of a domestic type. It may be necessary to arrange for longer spells of work, with a complete holiday afterwards, in some departments of nursing. There are puzzling matters to be thought out, which agree better with a department of health than with a department of labor."

WHAT SHOES FOR NURSES?

By E. H. BRADFORD, M.D., Boston, Mass.

ALTHOUGH the protection of nurses' feet is as important for a hospital superintendent as the guarding of the feet of soldiers for the colonel of a marching regiment, yet less has been accomplished in providing suitable shoes for nurses than for soldiers. This is partly due to the fact that the demand for proper shoes is less urgent in the case of nurses than in that of soldiers. Little regard need be paid to the demands of style in soldiers' shoes, while since an acceptable appearance is important in a nurse's calling, ill-fitting, clumsy footwear is undesirable, and this fact must be carefully considered.

In shoes ordinarily furnished to women, the foot is brought into a pronated position, which puts an additional strain on the inner ligaments and promotes the development of flat foot. This is due to the fact that normally the bones of the foot, when placed in a strong weight-

X-ray of a foot in a shoe—showing the crowding down of the first metatarsal by a shoe shaped on a too flattened last.

bearing position, are so arranged that the inner side is much higher than the outer. If the inner side of the front of the foot is brought down nearly to the plane of the outer side, this is accomplished by twisting the foot slightly at the midtarsal joint, causing the position of knock ankle, plano valgus or flat foot, the disadvantages of which are not only in the danger of the development of a fixed deformity, but also in weakening the weight-bearing capacity of the foot. Another disadvantage from faulty shoes, especially if the heel is high, is that a weakening deformity known as pes cavus or humped foot, may be developed. This is accompanied at times by a distortion characterized by the drawing up of the toes, which, in an exaggerated form is called claw foot.

Common Sense and Fashion Conflict

The shoe which is not shaped according to the natural shape of the foot, hampers its normal movements and cripples its action. On the other hand, a shoe shaped so as to give perfectly free action to the muscles and articulation of the foot may not be acceptable to the shoe purchaser. A compromise must be reached which will be suited to the muscular needs of the purchaser, and also acceptable in the market.

It will be seen that shoes of the high heel period of one hundred and fifty years ago differed in shape from those which are now the fashion, and in many respects were less injurious to the foot. The front of the fashionable shoe of that period was covered by a buckle or a bow and was made fuller over the waist of the shoe, than at the present time. Apparently the desire now is to give to the foot the appearance of a high instep. This is done by flattening the last at the level of the ball of the foot. As the leather is shaped over a last of this fashion, and stitched firmly down to the sole, with the addition of a non-stretching seam, the foot is obliged to conform quite closely to the lines of the last. The foot placed in such a shoe is held in a more or less unyielding box. As the heel is raised the foot slides forward, this being checked by the resistance of the cross seam, or of the leather stretched tight over a too much flattened last.

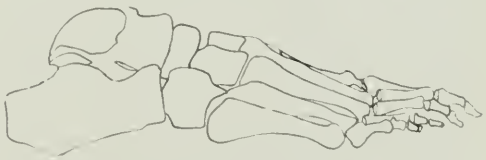
Injurious Effects of Flat Toed Shoes

Widening the sole of the shoe does not remedy this, or give the necessary room for an up and down play of the toes, for the leather is stitched on to a stiff sole. The injurious effect from shoes made from a last of this sort is twofold, first, at every step pressure is placed upon the first metatarsal which brings an abnormal strain on several ligaments, especially upon that of the first metatarsal. This may give rise to a peculiar deformity, characterized by the projection of the ankle-end of the first metatarsal, which may appear to the patient to be due to a growth in the bone. It is really, however, the result of the flexing of the bone similar to that seen in the knuckle of the hand if the finger is bent downward. The second injurious effect is that flexing of the toes is checked, since they are pressed down flat upon the shoe sole, by the pressure of the upper part of the shoe shaped on a flat toed last.

The object of flattening the top of the last is to obviate the development of unsightly wrinkles in the upper of the boot, after they have been worn. If the requisite is injurious to the foot, it should be disregarded, but the difficulty can be met, by opening the shoes well down toward the toes, as is done in skating and baseball shoes. With proper designing on the part of the manufacturer, a neat looking shoe could be made which would not injure the nurse's foot.

Defective Shoes Increase Fatigue

The work of a nurse does not require long marching, it does require long hours of standing. For this use the muscles of the soles of the feet should be strong, and the



Skeleton of a foot seen from the outside—showing that the bones of the front of the foot are higher on the inner side than on the outer side.

flexibility in the mid-ankle joint should be normal, so that the weight of the body would come on the foot in a proper weight-bearing position. As a nurse may be obliged to lift with the body leaning forward, some flexibility of the toes, to give toe pressure as the body leans forward, is necessary. If the nurse's feet are not in a normally flex-

ible condition so as to give the proper suppleness or muscular strength, the nurse needs treatment, if, however, the foot is relatively normal a shoe should be furnished which will not hamper her in her work.

Last century fashionable slipper—showing fullness over the front of the foot.

Defective shoes cannot always be recognized at the first fitting. They may at first seem comfortable, for the foot has enough adaptability to adjust itself to new strains, but they might in wearing give an abnormal strain for the adaptation itself is a tax on the foot which lessens working power and invariably occasions undue fatigue or nervous strain.

Thus a nurse's shoe should not be as clumsily loose or as heavy as that of a soldier, but there should be sufficient pliability for a moderate amount of toe play, and such flexibility of the upper as to allow proper mid-ankle side play. The shoe should be arranged so as to check the slipping of the foot forward well above the line of the middle of foot, and not so as to press the metatarsal downward.

The problem for the shoe dealer is to furnish a shoe sufficiently full in front without such a sacrifice of style as to prevent saleability. That the heel should not be high goes without saying, as also that the shoe should not be of the pointed toe variety. The shoe should not be designed to support the arch, for flat or weak footed nurses need not shoes but treatment.

Modern shoes, shaped on lasts which are flattened too much over the front of the foot.

From the manufacturers' point of view it may be said that, in making up shoes for the market, there should be a sufficient demand for the sale of a special nurses' style as to justify the necessary financial outlay. If, however, hospital superintendents, and nurses' associations agree upon the best possible shape and style for a suitable shoe, there is no doubt that the demand would be met readily by shoe dealers and manufacturers. Special shoes are now made for dancers, skaters, football and baseball players; do not nurses deserve equal consideration?

NURSING IN THE MOVIES

By EDWIN P. HAWORTH, M.D., Superintendent, Wilcrest Hospital and The Willows Maternity Sanitarium, Kansas City, Missouri

WHY do movies have such unreal stuff when they attempt to present a drama of nursing or hospital life? Is it that photo-dramatists think life is as they picture it?

I just came from the movies, seeing Mary Miles Minter in a film entitled, "Nurse Marjorie." Miss Minter acted very attractively the part she had to play, but she was not a nurse. No nurse would do the things she did. No hospital of standing would tolerate the actions of such a nurse. It is not normal nursing or hospital life.

The general shortage of nurses has been so acute that all forms of propaganda work have been suggested to interest young women in taking training. Encouragement has been offered for several years in getting more novels, more short stories, more special articles, more movies and plays to present nursing and hospital training life. And perhaps the authors of these flimsy sketches really believe they are helping to interest young women in nursing as a profession. Be that as it may, they are missing the goal.

There is plenty of romance in hospital life to make wonderful pictures. Tragedy and near-tragedy stalk the corridors daily. Comedy is bravely tiptoeing the surgical ward. But silly sentimentalism with a shabby love setting is rarely tolerated in the roles of the nurse, the interne, and the doctor. Remember that doctors of the present day are the best educated class of men outside the high school and college school rooms in the world. And the nurse is a professional woman.

The young woman is not in the hospital to play hands and enact silly love scenes. Through the agency of foolish stage, film, and literary art, hospitals have more severe attacks of love epidemics than they used to. And it is harder to cure the malady than it was formerly. More of the wrong type of aspirants make application for hospital work, and less proportionately of the old school type of nurses are called to enter training. This latter type is disgusted by the hospital life as depicted in the movies; if that is the nursing life of the day, she will have none of it.

Nursing life has always been looked upon by the laity as a Florence Nightingale or Clara Barton sort of life—something ideal, with a purpose. It is the model profession for the humanitarian, and may be backed up with a sense of religious responsibility or purely a personal and altruistic feeling. It is a non-worldly profession, and for the non-Catholic world is the substitute for services of the Sister of Charity. It is an opportunity to give one's own life in service to his fellowmen. As such, nursing has had its own distinct appeal.

Now with the film presenting the nurse and her profession visually in a new light, the nursing standards of earlier years are not being preserved in the eyes of the world. Unfortunately this is sending applicants to training schools who start with the wrong ideals. True, the life depicted is not the one they find. But there is much wastage in working out the false ideals and developing the right ones. In the meantime the girl with the proper ideals, the one already right-minded, is not coming for training in the proportion that she once did.

Perhaps I am wrong in thinking the movies are treating the nursing profession worse than other kinds of life. Perhaps it is merely the unusual and farfetched method of handling all lines of life and thought. If so, so much the worse for the movies. If they are as abnormal and unrealistic as that, then they are a more demoralizing influence for civilization than I had thought.

But the life of the nurse, pupil and graduate is subject to worth-while dramatization if presented faithfully. There are details in her life that appeal to the imagination and show her to be a character worth spending an hour with in the movies.

Why can't we see the real nurse on the screen, instead of the movie-actress, play-nurse! Both the personality and the dramatic motive would then be improved, much to the advantage of our ideals, and the future of the nursing profession.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
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WHAT ARE THE ADVANTAGES OF THE CAFETERIA SYSTEM?

BY EMMA R. BAKER, TEACHERS' COLLEGE, NEW YORK CITY

THE general impression that a cafeteria is a cheap place in which to eat is misleading. Good food, wherever and however served, is expensive; but the same quality, self-served, can be sold at less cost where music, flowers, decorations, linen, menu-cards, etc., are eliminated. In institutions where we must earn as we spend, the quality of the food is our first consideration. The same economics in buying, receiving, storing, distribution, preparing, and cooking foodstuffs are applicable to the cafeteria as to all other dining rooms.

Whereas we used to think the cafeteria a place where the *à la carte* menu alone was in vogue, necessity, or the labor problem, has forced us, in some instances, to install the self-service form in place of the *table d'hôte* meal.

Seven years ago, when faced with this particular problem, we were unable to find one single example of this kind in New York City. We were obliged to work out our own salvation. Today many institutions have found the self-served breakfast and luncheon economical. For obvious reasons, the evening meal is more satisfactory when service can be rendered.

As a means of feeding employees, the cafeteria *à la carte* has distinct advantages, especially where the workers are of different nationalities, accustomed to different kinds of foods. The opportunity given for a choice is a great factor in keeping them contented.

Having decided upon the cafeteria form of service, our first thought, after the location has been settled, is the division of the allotted floor space, approximately; one-third space for food preparation in kitchens and storerooms; one-third space for service, (this space railed off): counter, steam-table, and urns; one-third space for the seating of our patrons.

The best shape for our dining room is a square, nine to twelve square feet being necessary for each individual whom you expect to accommodate, nine being the low, twelve the high limit. With a floor space or seating capacity of 2,500 feet, we can seat approximately 250 people at once.

Our service counter will easily provide for 250 to 300 people. Above this number, a second service counter is essential; or, two steam-tables, side by side, may fill the need, where economy of space must be considered, it being possible to increase facilities for the serving of salads and desserts by building perpendicularly.

Four to ten people a minute pass a given point in our lunchrooms, depending upon the length of the menu, and the type of the patron. We find that children pass along more quickly than adults. An average of twenty minutes is spent at the table by the student or worker whose time is limited. This means that the seats can be filled three times during an hour. The greater the number of times that equipment and labor can be utilized within a given time, the better from the economic standpoint, for long waits between relays are expensive.

In the problem of making menus for a certain institution there are several points for consideration. The first point is the type of patron, the age, sex, activities, class, nationality, financial ability or custom. If all are students of the same age, activities, and class, a *table d'hôte* meal is more easily and satisfactorily served for a certain specified sum, which can easily be regulated by the sale of tickets. Regular numbers of patrons should be guaranteed, however, to make this economically safe.

In two instances we furnish a *table d'hôte* luncheon, at a specified sum, to children whose parents wish them to have a balanced ration. But where every age, nationality, and both sexes, are numbered among our patrons, opportunities for a choice are more popular. We have one school where every grade from kindergarten to college professor is represented. Here, a very definite policy is pursued to meet the different tastes, ages, and pocketbooks. At night, with no children to consider, the limited bill of fare is better liked by the majority. Here, at luncheon, our bill of fare consists of:

One soup.
One roast (meat or fish).
One made-over.
One meat substitute.
Two vegetables besides potato, rice, macaroni.
Three salads—heavy, relish, sweet.
Three sandwiches—heavy, relish, sweet.
Desserts—pudding, custard, ice cream, cake, fruit (fresh, dried, canned).
Bread and rolls.
Beverages—milk, cocoa, tea, coffee.

The evening meal consists of:

Soup, one meat roast and a fish, two vegetables, a simple salad, ice cream, cake, pudding, pie, fruit, tea, coffee, milk.

Second, after considering the type of menu, *table d'hôte* or *à la carte*, we devote our attention to its make-up in relation to: the cost, nutritive value, (meal, day, and week,) the season, market conditions, and popular taste or custom, (Friday, Lent, Jewish holidays).

Safety lies in variety, and whether that variety should be furnished in one meal, one day, or one week, depends upon whether or not patrons are regular or transient, all of the same age, sex, or activities.

Whatever the type of menu, there is no excuse or reason for serving the same things on two consecutive Mondays, Tuesdays, etc. If one must use the same set of menus a second time, arrange for eight or nine days, so that the same one will not be repeated on the same day of the week. In making menus, we must try always to have something fresh and different in every meal, not all the good things in one, and the prosy things in another. Vary the items themselves, and vary the form in which they are served. For instance, in made-over meats there are: cutlets, croquettes, loaves, cakes, hashes, creamed or minced meats, salads, meat pies, stews, or jellied meats.

Cereals, vegetables, and desserts offer many opportunities for variety. Vary the name for practically the same thing; for example: tomato soup, cream of tomato soup, or tomato purée.

Naturally insipid and flavorless foodstuffs need piquant sauces; colorless and unattractive ones, a bit of color. A cherry, a bit of jelly, or a little whipped cream will make a nourishing but unattractive dessert or salad salable. Many times, the cheaper foods are in themselves less attractive—cod, blanc mange, etc. Sliced or grated egg, pimento, or paprika will dress up an otherwise unpopular fish or vegetable.

Thirdly, we must consider counter display. Since it takes longer to dispense the hot foods at steam-tables and urns, congestion is apt to occur at these points; therefore, I see no reason for keeping the customary sequence of courses. Since the entire meal is on the tray at one time, the natural order—soup, roast, salad, and dessert—need not be followed. In order that hot foods may remain hot, why not place steam-table and urn at the end of the counter?

For psychological reasons, let us make our counter display as attractive as possible. For example, in salads and desserts, intersperse the colorless with the colorful, keeping in mind the practical necessity of placing conspicuously and attractively those dishes which should be sold first. This is good salesmanship.

The fourth point is the size of portions. It may be good policy to serve expensive foods in smaller portions, while those of the less expensive ones are made more generous. It is our experience that many prefer smaller portions, which insures a greater variety on their tray. As the variety on the menu increases, the portions may decrease in size, and vice versa.

In the fifth place, there is the size of dishes and utensils. Use dishes to fit the size of the portion. If the dish is too large, small portions look stingy, and servers may be tempted to give more than can be afforded, and food may be wasted. When too small, too little food may be given or dishes may be over-full. This is true of individual cream and syrup pitchers as well as dishes for custards, etc.

Standardize the number of orders to the pan of cake, pie, or pudding; the number of orders to a roast, or fish; the number of cups to a gallon; and the size of fruit, apples, oranges, grapefruit, or prunes, to be served. Standardize the size of ladles and spoons to a serving, to prevent a second dipping.

"The little leaks sink the ship." It is only by accurate work in measurements that we can know where we stand in regard to food preparation and food costs.

In conclusion, some of the advantages of cafeteria service to the patron are: cheaper service, quicker service, greater variety, the fact that he may actually see the food and take nothing which he might otherwise scorn, and if he uses good judgment, the absense of waste. It also helps children at an early age to learn food costs, food values, self-dependence, democracy, and self-control.

The distinct advantage, to the management, of a cafeteria system, is the elimination of approximately 25 per cent of the labor. There being no "tipping," the cost of service is greater than in the average tearoom or restaurant; but our self-respect more than makes up for this item. There is little or no laundry; there are greater possibilities in the use of left-overs; there is a minimum of waste. It is possible to make use of smaller quantities in a short market; to change items at short notice; to fit all pocketbooks, fat and otherwise; and to meet all demands—those of faddists, vegetarians, meat eaters, dyspeptics, and the "many men of many minds," who are always with us.

A favorite quotation of Miss McKenney of the University of Chicago is, "When I go fishing for trout, I feed them angleworms, not because I like angleworms myself, but because the trout like them."

NEWS ITEMS

Miss Carrie Luce is assistant dietitian at Lakeside Hospital, Cleveland, with Miss Bessie Brinton.

Miss Rowena Jackson, formerly dietitian at Hahnemann Hospital, Rochester, N. Y., is taking post-graduate work at Mechanics Institute, Rochester.

Miss Esther Schneider of the University of Illinois has completed student dietitian training at Barnes Hospital, St. Louis, Mo., and has been appointed assistant dietitian in that hospital.

Miss Charlotte Addison, head dietitian at Post-Graduate Hospital, New York City, recently submitted to a very serious operation and has gone to her home in Canada to remain until she has regained normal strength.

Miss Isabel Stewart has recently gone to the Montefiore Home, to help them solve the problems in their dietary department. Montefiore Home is a Jewish institution for chronic invalids, and offers an opportunity for interesting work. Miss Stewart was formerly at Cook County Hospital, Chicago.

Miss Helen Peterson has accepted the position of dietitian at the Lutheran Hospital, La Crosse, Wis. Miss Peterson is a graduate in home economics from the South Dakota State College, and his since completed a four months' training course as student dietitian at St. Barnabas Hospital, Minneapolis, Minn.

Miss Naomi Jones has accepted the appointment of assistant dietitian at Michael Reese Hospital, Chicago. Miss Jones is a graduate of the home economics department at the New York State College of Agriculture, and also the course of training for student dietitians given at Cooper Hospital, Camden, N. J.

Miss Alice Smith is dietitian at the Children's Homeopathic Hospital of Philadelphia. Miss Smith is a graduate of the home economics department of the New York State College of Agriculture. She took student dietitian training at Cottage State Hospital, Mercer, Pa., between her junior and senior years, after which she filled the position of dietitian at that hospital for a few months, before completing her college work.

Miss Lilian Boggs has gone to Beirut, Syria, to engage in cafeteria work under the auspices of the Young Women's Christian Association. These cafeterias are being established chiefly for the women who have gone into business life from the seclusion of harems. Before going on to Beirut, Miss Boggs will spend some time in Constantinople, in order to familiarize herself with markets, and conditions relative to food service in that country.

THE PLACE OF DIETETICS IN PUBLIC INSTITUTIONS

By Katherine Bement Davis, M.D., General Secretary, Bureau of Social Hygiene, New York City.

THE group of institutions with which I am most familiar is a special group, and one in which there is still very much to be done. I refer to those institutions on the cottage plan, by whatever name they are known, which care for delinquent women and girls.

This group of institutions brings in an entirely different set of factors from those present in the big congregate type of institutions, like general hospitals, state hospitals for the insane, institutions for the feebleminded, etc. Anyone who has given a thought to the subject cannot fail to see the fundamental importance of dietetics in reformatory institutions. In such sayings as, "The stomach is the way to the heart of the average man," and "An army travels on its stomach," we see general recognition of the effect of diet on morale. No institution will be highly successful which does not properly feed its inmates, whether they are there for sickness, for crime, or for dependency; and recognizing this one by one, practically all of our best hospitals and other large public institutions have come to employ the services of a trained dietitian, either under that name, or under one that implies the function. The services of a trained dietitian have been much more slowly utilized in the penal institutions. Such an officer, for example, was first placed on the staff of the department of correction during the Mitchel administration, and is continued under the title of departmental steward, his functions being to inspect and supervise all food received in the institution, plan menus, and consult with the chefs of the institution as to the preparation of the food and its service.

In the group of institutions in which I am especially interested, we need to consider dietetics, and hence the dietitian, from three points of view. First, that of health; second, that of discipline; third, that of education.

It is unnecessary to speak here of dietetics in relation to health. To anyone who is familiar with institutions for delinquent women it is unnecessary to point out the very high percentage of those who are physically below par at the time of their commitment. Whether this is the result of the life they have led, of physical defects such as poor eyesight, bad tonsils, adenoids, or other disabilities which may be remedied, diet will play an important part in the regaining of such physical health, as will enable them to be receptive of the various influences which make for regeneration. From the point of view of health, it is obvious that there will be groups needing a specialized diet, entirely aside from the hospital cases.

Disciplinary difficulties in this class of institution occur frequently, and there is no cause that leads to trouble more certainly, quickly, and directly, than dissatisfaction with the food served. A very high percentage of the young women who go to institutions have become accustomed, in the course of an irregular life, to eat irregularly and on the whim of the moment. They have acquired appetites for highly seasoned food, and food which appeals to the taste, rather than that which is nutritious. The ordinary bill of fare for the penal institution makes absolutely no appeal to a jaded taste, on account of its plainness, its lack of variety, and its routine character. It would hardly be too much to say that a direct relationship could be mathematically established, between dietary defects and certain kinds of disorders.

Years ago when we began to build the cottage type of institution, domestic service was practically the only outlet for the labor of these girls and women when they were released from the institution on parole, or were finally discharged. One of the great arguments for institutions of the cottage type for women and girls was that the smaller kitchen and dining room, while providing for a larger group than is found in the ordinary family, afforded a means of training much greater than institutions of the congregate type. In addition to the training afforded as means of earning a livelihood, there is the further fact that a very large percentage of these women marry, and anything which will raise the standards of ordinary family life in the lower social strata is advantageous to society as a whole. This latter consideration still remains, although as to the former, with the passing years there is a growing unwillingness on the part of the young women released from these institutions to accept domestic service, and a growing feeling on the part of institutional officers and others, that this is a point of view which must be dealt with; accordingly, the emphasis laid today on training for domestic service is less marked.

Whether we consider the problem from the point of view of health and education, or merely from the point of view of discipline, the service of a trained person to supervise the food problem is obviously a necessity. Certain difficulties, however, present themselves to the managers of such an institution. The number of inmates in each of these institutions throughout the country is rarely over 600, and it is frequently impossible to pay the salary of a properly trained woman to serve as a dietitian alone. Accordingly, we find such combinations as an assistant superintendent who serves as dietitian; a cooking teacher, who in addition to doing the actual teaching in the classroom, superintends and makes out the menus, and in some instances meets and instructs the housekeepers in the preparation of the same; or a head of one of the cottages who is obliged to fill in her spare time with the work and supervision of the menus. In any case in a cottage institution the closest cooperation is necessary between the dietitian, whoever she may be, and the cottage officers, if good results are to be obtained. The cottage officers are apt to be women, who, left alone in middle life, have no trade or profession, and who apply the knowledge of housekeeping obtained in their own homes to institutional cottages. There is a growing difficulty, however, in securing enough of them who can perform their duties satisfactorily, for more is necessary than mere knowledge of running a private house.

It has occurred to me to wonder exactly to what extent the increased cost of living and the increasing difficulties in securing adequate staffs might be underlying causes of restlessness in some of our institutions. I chose the institution which I knew best, that is, the State Reformatory for Women, at Bedford Hills, and made a comparison of certain items in its budget covering a ten-year period. The last available budget was that for 1919.

1919	Total maintenance appropriation	$177,391.02
1909	Total maintenance appropriation	66,887.51
	Total increase in maintenance fund	$110,503.51
	Per cent increase	165.2

During this period the movement of population was as follows:

1919	Average daily population	348.9
1909	Average daily population	306.9
	Increase in population	42
	Per cent increase	13.7

A comparison of the daily per capita shows:

1919	Average daily per capita for maintenance	$1.3928
1909	Average daily per capita for maintenance	.599
	Increase in average daily per capita	.7938
	Per cent increase	132.5

The two specific items in which we are particularly interested are those for food and for salaries. These were as follows:

1919	Daily per capita for food supplies (19.6% of total per capita)	$.273835
1909	Daily per capita for food supplies (24.55% of total per capita)	.147
	Increase in daily per capita for food	.125835
	Percentage increase	85.5
1919	Daily per capita for salaries (39.3% of total)	$.547427
1909	Daily per capita for salaries (47.4% of total)	.284
	Increase per capita for salaries	$.263427
	Percentage increase	92.7

But this does not tell the whole story. We must compare the number drawing salaries at the two dates.

1919	On pay roll	107 persons
1909	On pay roll (one person half-time)	56.5 persons
	Increase in number	50.5
	Percentage increase	88.5
1919	Total salary budget	$69,719.28
1909	Total salary budget	31,699.14
	Total increase	$38,020.14
	Percentage increase	119.9
1919	Average salary (107 individuals)	651.58
1909	Average salary (56.5 individuals)	561.04
	Average increase	90.54
	Percentage increase	16.11

It must be borne in mind, however, that these figures, also, do not tell the whole truth. A very large per cent of these persons receive maintenance in addition to their salary, and the increased cost of this important part of living has thus been borne by the state. Thus these officers are not personally affected by increase in food prices. Aside from food, the largest item in personal expenditure is that for clothing. Research Report No. 28 entitled, "Changes in the Cost of Living, July 1914, to March 1920," published by the United States Bureau of Labor Statistics, presents index numbers based on average retail prices in 1913. The report states that clothing increases form the largest budgetary increase in this period, and advanced 177 per cent between July 1917 and March 1920. Practically a week's salary is required by the lower paid members of the staff to buy a pair of shoes. What wonder that there is difficulty in obtaining and keeping cottage matrons!

The index numbers for the advance in food prices show a more reasonable provision by the state for meeting this important need. The percentage increase for food at Bedford between 1909 and 1919 was 85 per cent, while the index numbers based on forty-three standard articles show an increase in retail prices of only 84 per cent between 1913 and June 1919. Institutional purchases are wholesale so these figures are not to be taken as exact. They only indicate a tendency.

It would seem from all this that the principal part of the task of a dietitian in such a cottage institution at the present moment would not be so much the increased difficulty in securing the food material necessary to furnish a balanced dietary, but in the difficulty of finding suitable persons to help carry such dietaries into effect. I am strongly of the opinion that no other officer in a state institution is of greater importance than the dietitian, and that increased efforts must be brought to bear to persuade our legislatures to budgetary increases to secure such services for the institution, and an adequate salary for those whose services are equally necessary to make the work of the dietitian a success. Such an effort, if successful, would go far toward solving disciplinary difficulties in some of our institutions.

NEWS NOTES

The following news items were written several months ago but through an oversight they were not published. They may no longer be new to some of you, but to others they may, hence we publish them, though tardily.

Miss Elizabeth Ross Owen is now at The New Charlotte Sanatorium, Charlotte, N. C. For some time we have associated Miss Owen with Highsmith Hospital, Fayetteville, N. C.

Miss Beatrice Roach, formerly dietitian at the Ithaca City Hospital, Ithaca, N. Y., has recently gone to the Cancer and Skin Hospital of New York City. Miss Roach is to devote her time especially to children's cases.

Miss Evaline Kerr resigned at Letterman General Hospital, San Francisco, to return to Alameda County Hospital, San Leandro, where she was located before going into service. Miss Belle Haggerty has been dietitian at Alameda County Hospital during this period.

Miss Lulu Winans has been appointed head dietitian at St. Luke's Hospital, Chicago. There has been a readjustment of the dietary department at St. Luke's, and Miss Winans has been given supervision over the work previously done by two dietitians acting independently.

The following dietitians have a new address but we know no details of their new work: Miss Adeline Standemayer, National Soldiers' Home, Los Angeles County, Calif.; Miss Pauline Lamson, Fayette Memorial Hospital, Connersville, Ind.; Miss Ruth Dodge, United States Public Health Service Hospital, Prescott, Ariz.; Miss Frances Malem, Stanley Hospital, Rochester, Minn.

The Chicago Dietetics Association held its November meeting in the Hospital Library and Service Bureau rooms in the Modern Hospital Building on November 26. Reports of the meeting of the American Dietetic Association were given by: Miss Mabel Little of Marshall Field & Co, Miss Anna Boller of the Infant Welfare, and Miss Ruth Cornmar of the United States Public Health Hospital.

The Chicago Dietetic Association met Friday, September 24, at the Michael Reese Hospital. The Association had the privilege of having Dr. Ernest Lackner present to them "Schick's Translation of the Von Pirquet Method of Calculating Food Values." When a thorough knowledge of using this method is acquired, it proves much more simple than our present caloric method of calculating values. After the lecture the members were invited to the playroom of the Sarah Morris Hospital, where readings by Mrs. F. W. Fischer, and refreshments were much enjoyed.

START CAMPAIGN FOR CHILD WELFARE

At the October meeting of the American Child Hygiene Society, in St. Louis, an intensive campaign for the preservation of child life was launched. It was shown by statistics that the number of infant deaths in 1919 was 12,000 fewer than in 1910. An educational campaign will be started to further reduce this rate. An exhibition of child welfare work was held in connection with the meeting. Such topics as prenatal care, maternal care, infant care, pre-school age, school age, and adolescence, were discussed.

Many people who are complaining of not getting a square deal would complain a good deal more if they got it.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

BY C. B. EVANS, THE ECONOMIST, CHICAGO, ILLINOIS

THE tone of business in the United States has improved materially since the turn of the year. This change is due rather to a sense that liquidation has already gone far, and not to any new buying impulse in the commodity markets. It arises also, in part, from a sense that the country has shown great strength in view of the widespread decline in prices, and the exposure of all persons engaged in business to disaster. Failures have been many, and there will be possibly more this year than in any former twelve months of our history, but that we can stand so much, and yet not collapse, gives confidence to leading business men, many of whom declare that the worst has been seen.

The evidence now points to a steadiness in affairs, in contrast with the uncertainties of the second half of 1920, and to a temporary compromise between complete liquidation, with a return to the normal of pre-war years, and the inflation which characterized the period of the war plus the first few months of 1920. Labor will still insist on a larger participation in profits than formerly, and there is every probability of high percentages on capital for years to come. The result naturally will be prices somewhere between those of early 1914 and those of the high levels last year.

The extraordinary need of repair throughout the world may reasonably be expected to give workers enough to do, but the production of capital to work with will not always keep up with the need; hence one should not base great expectation on the favorable turn affairs have taken. We shall have further breakdowns without doubt. They need not occur from over-production, more likely from the insufficiency of liquid capital.

We must keep in mind the sore spots of the world; indeed, we must remember that the whole world is sore. One may note the points of most acute suffering—Japan, Mexico, Cuba—and consider them symptomatic of the whole condition. In a period of many years London had no important failures, but two banks in that city—not of the largest caliber by any means—have recently failed. Amsterdam has shown the white feather, and so have the financial and industrial institutions of Belgium. South America is not a serious menace, though there have been many repudiations of contracts, and other evidences of inability or unwillingness to meet obligations.

The farmers of the United States are showing up a little better than heretofore. They have concluded that they must participate in the general liquidation, and of late the receipts of grain in Chicago have increased; this is partly because of pressure brought against this class by state governments and individuals, to induce them to part with a portion of their grain even at prices which they consider too low.

Curtailment of manufacturing continues, but at a rather slower pace than heretofore, and in some instances mills that closed in December have reopened in January. The demand for reductions in wages has been met, on the whole, rather cheerfully by the workers, and there is not a tithe of the disturbance in the labor market in the period of decline that occurred when prices were advancing. An unexampled volume of immigration into this country in the past few weeks has something to do with this spirit, as also has the reiteration of reports that millions more of Europeans are desirous of coming this way. Nevertheless the high cost of labor is still the greatest obstacle to the restoration of affairs to the old status. Almost equally is the spirit of profiteering a bar. Retailers have reduced prices on many articles, but in myriads of cases it is found that the gap between wholesale and retail is a wide one.

As to transportation cost, one need not expect any improvement, for the law requires that rates shall be charged which will produce interest of 5½ per cent on the capital, and the roads are now falling short of that boon. Wages in that interest will probably continue at their present level for a long period, and cost of material has gone only a part of the way down.

Money conditions have improved slightly, but rates are about as heretofore. With the Bank of England's proportion of reserve to liability the lowest in fifty-four years, one can see how little cooperation with our needs Europe can give us, and the pressure on capital in this country is still great.

The situation among wealthy and well-to-do people has an important bearing on the prospects of hospital service to the country. The endowment machinery in the heart of the American is not likely to work to full capacity until the whole business situation improves.

The fact that an article is selling below cost of production does not necessarily mean that it will soon rise, for we still have the element of wages, and little has been done toward cutting them down. Perhaps the most important sign of a possible further decline in drugs and chemicals is in the continued craze for the organization of new companies, which for November involved a capitalization of $50,000,000. Nor does the increase in the production of certain articles on this side of the Atlantic necessarily mean lower prices.

The mining of arsenic has migrated from England to

Mexico, and Florida has a promising camphor industry, but in both these cases high wages and long hauls by rail are involved. European production is still the point to which one must look for low figures, and scarcely is there any limit to the amount of this class of goods that Germany can turn out, or at least to the poverty motive which will compel low quotations.

Then new things, to supersede old things, are coming in. The Standard Oil Company of New Jersey is producing petrohol to take the place of wood alcohol. That playful commodity, quinin, has been calling attention to itself lately, going to fifty-one cents per ounce, as against $3.00 two years ago. It is now up ten cents or so from the low figure. It now has no high tariff to strengthen its backbone. We had, indeed, throughout the entire year an "easy" market. Citric and tartaric acid are at pre-war prices, quicksilver still slipping, lard oil, imitating the hogs, is running violently down a steep place. It is given out that the production of glycerin is smaller than for many years before the war. The same was said regarding raw silks, but within a short time the Canton and Shanghai articles have reached new low prices, following the collapse of last spring in the Tokio market.

Linens are the one strong item in fabrics, for Russia is out of the game, Belgium can produce only moderately, and Ireland is largely suspending operations with that commodity. But warehouses appear to be well filled, buyers are still on a strike, and even these hoarded elegancies must have their break. This situation apparently does not apply to hospital grades, in which the visible supply is limited.

Prices on food, clothing, and furnishings show a consistent decline, but here, again, retail prices apparently have not declined in the same ratio as wholesale and producers' prices.

Figures recently issued by the Department of Labor give interesting light on the comparative prices of general necessities:

"The figures cover expenditures in eight cities—Baltimore, Cleveland, Chicago, Detroit, New York, Philadelphia, San Francisco and Oakland, and Seattle.

The average cost in the eight cities at the beginning of the new year was 99.2 per cent over the average cost in 1914, while at the end of last June it was 115.1 per cent.

Using the 1914 cost as a base, the percentage increased cost of the various items in the eight cities were as follows, in June and December:

Food, June, 110.9; December, 75.6.
Clothing, June, 191.3; December, 159.5.
Housing, June, 41.6; December, 49.5.
Fuel and light, June, 57.6; December, 79.0.
Furniture and furnishings, June, 191.8; December, 181.9."

Why Linens Will Not Decline to Pre-War Prices

The following interesting communication, received recently from Mr. C. P. Coulter, president of H. W. Baker Linen Company, of New York, gives additional light on the linen situation:

Prices are declining on textiles, principally because of decreased demand and lower costs for labor and raw materials.

Only two of these factors, however, can influence the price of linens, as the raw material, flax, is scarcer than ever; in fact, almost famine conditions prevail and are quite likely to continue.

It is reported that Russia produced 388,000 tons of flax in 1914, or about 85 per cent of the world's supply; Austria-Hungary 5 per cent, and France, Belgium, Holland, and Great Britain the remaining 10 per cent. Considerable of Russia's flax was produced in the sections adjoining the Baltic Sea, invaded by the Germans early in the war, consequently large stores of flax fell into their hands. As a result of war conditions, the export of flax from Russia into allied countries had been reduced to about 80,000 tons in 1918, the last year for which any figures are available, although it is certain the supply was even less in the years 1919 and 1920. During this period the production of France and Belgium was also naturally much reduced, although this shortage was offset to some extent by increased production in the British Isles, where the growing of flax was encouraged in every possible way by the government.

It is hardly likely, however, that farmers in the allied countries will continue to raise flax unless encouraged by high prices, as it is a crop requiring much attention, takes considerable out of the soil, and requires the farmer to handle partly decayed vegetable matter while standing waist deep in water.

In pre-war days the Russian peasants were compelled by their government to raise flax as a tax crop, but under soviet rule it is more than likely that the planting of flax will be discouraged, in order that the production of foodstuffs be increased.

Admitting, however, for the sake of argument, that in spite of these facts Russia produces more flax next year than she has in the last two, how is she going to export it with a transportation system so badly demoralized that several years are perhaps required to make exports possible, even though other countries resume trade with her.

It would seem, therefore, that for the next few years the world must depend upon the new republics of Esthonia, Lithuania, and Latvia, formerly part of Russia's Baltic territory, and upon Czecho-Slovakia, to augment the meager supplies from the allied countries.

In view of these facts, it is more than likely that flax will continue to command its present price of £200 to £500 per ton, as against a pre-war value of £50 per ton.

It would seem reasonable, therefore, to eliminate the question of cost of raw material as a factor in determining the future cost of linens.

If this be so, only saving in the cost of labor and other items necessary in their manufacture can be depended upon to reduce the price of linens, and these considerations have already probably been discounted, as prices are now from 25 per cent to 33⅓ per cent below the peak."

Statistics of recent date show that the declines in hospital specialties have not been at all sensational, as compared with those of cotton, sugar, rubber, leather, and other articles of widely general consumption. On the basis of one hundred, January 1, 1914, twenty-five industrial chemicals are quoted at 200, against 242 a year ago; acids, 160, against 219; intermediates, 287, against 338; natural dyes, 142, against 226; pharmaceuticals, 225, against 293; crude drugs, 194, against 302; essential oils, 162, against 241.

The pull on this class of articles from the decline in leading staples will be strong. In the whole list of those commodities rallies have been feeble, and copper touched a new low at twelve and one-half cents at the close of the year, that is, it was about one-third of its maximum price during the war. Cotton is a little better in price than in the last days of December, but the cotton mills are still clogged with certain classes of goods, especially those used by the automobile companies. Steel yields grudgingly, the average on eight leading articles being in the ratio of 65 now to 85 as of the first of August. With Great Britain and Germany offering their products on a scale downward, it would seem that nothing but the restoration of a high tariff system can set up an effectual bar. The manufacturers of fabrics, almost steadily offering their goods down, with the mills running at only 25 to 50 per cent of capacity, are still feeling for the bottom and wondering whether there is any such thing. Wheat may be rescued by the fact that Russia is out of the market, and India, Australia, and Argentina have a long haul to reach the hungry of Europe.

REMOVABLE LIGHTING FIXTURES

HOSPITALS, sanatoriums, hotels, and even residences, have experienced difficulty in providing lighting facilities to meet changing conditions. This inadequacy of lighting facilities is due to several causes, among them the immobility of present ceiling fixtures and wall brackets, and the expense of installing or changing them. Both of these reasons result in an inability to adapt the fixture to the needs of the room after the furniture has been installed, or after any rearrangement of furniture has been made.

A wall bracket ready to put in place. Note the inconspicuous receptacle above.

It is the accepted custom among lighting engineers in planning a new building to provide for general illumination. This is as a rule standardized to a considerable degree throughout the building, and is designed to meet general rather than specific conditions. Additional lighting facilities are provided for by additional outlets, usually in the floor or baseboard, to which can be attached portable lamps, etc. Such arrangements for additional lighting facilities are not the most desirable, however, as these additional lights involve long extension cords, which are frequently in the way.

Under present conditions the lighting arrangement of a building can scarcely be expected to provide for more than the general illumination. To provide for specific or additional illumination of a room would involve the installation of numerous additional fixtures, which would mean considerable added expense, not only for installation, but also through unnecessary current consumption.

The elimination of these lighting difficulties has been made possible through a recent invention of Cantelo White, a New York electrical expert, and inventor of numerous well known improvements in lighting. This device consists of a ceiling and wall receptacle, with proper connecting plug of a movable character, which will hold the heaviest chandelier as securely as the present fixture with its permanently soldered connections, yet makes it possible to install or change a chandelier or wall bracket fitting in a few minutes. Furthermore, the receptacle is so inconspicuous that a sufficient number of outlets can be placed about a ceiling or wall to take care of any and all potential requirements, without impairing the appearance of the room.

This great step forward in the science of illumination is the result of the inventor's long study of lighting problems, including those of hospitals and similar institutions.

In his observations he saw the inconvenience of fixed lighting apparatus, the nuisance of lengthy electric cords, the trouble and expense of wiring when a fixture is moved from one place to another, and the necessity for quick and easy shifting of a light from one side or corner of a room to another, to suit the need of a patient, doctor, or nurse. His experiments led to the perfecting of a device whereby electric lights of all kinds can be attached to walls or ceilings, and shifted about with the ease of hanging a picture. The enormous advantage this device will be to all kinds of institutions can readily be seen.

The illustrations will give a clear picture of this invention. Fix in your mind the idea of two arc-shaped slots curving away from the face of the receptacle in opposite directions, and you have a fairly good conception of the construction of the inside of the ceiling receptacle. The plug connection for the ceiling receptacle consists of independent prongs, or blades, connected by lead wires to the chandelier lights. The prongs are curved in opposite directions like the prongs of an anchor, and, when inserted in the receptacle slots, cross one another in a most effective manner. The wall receptacle and plug is of much the same general design.

The plug is likewise easily attached to any wall fixture. When inserted in the outlet, its central curved blades pointing upward, it is strong enough to hold the heaviest fixture. The outlet much resembles the usual baseboard

The wall bracket is easily inserted in the wall receptacle.

plate, being inconspicuous as well as sanitary, because it is flush with the wall or ceiling.

Thus, the utmost flexibility of lighting, such as architects have been wishing to see for years, is possible in this device, whereby the mechanical and electrical connections are made at the same time.

The economy of the plan is apparent. The moment a fixture is needed in a particular place, one from another part of the building can be shifted at a moment's notice

The wall bracket in place ready to use.

to meet the different conditions. A ceiling fixture can be removed to a remote corner to prevent glare in a patient's eyes. Special lights in laboratories can be installed where needed, diagnostic lamps and electrical

Ceiling plug.

Wall plug.

devices of various kinds can be fitted with proper plug to permit the use of the same receptacle as provided for the lighting fixtures. A few reserve fixtures will permit great increase in the illumination of a room or building. The sanitary features of the plan are also evident. As many or as few lights as desired can be put in a room,

Ceiling plate and receptacle.

Wall plate and receptacle.

if an adequate number of outlets is provided on the wall or ceiling. Also the fixtures may be lifted off and taken out of the room during cleaning, painting, or alterations. It is expected that the device will be marketed early this year.

WHEN YOU BUY ROLLING EQUIPMENT

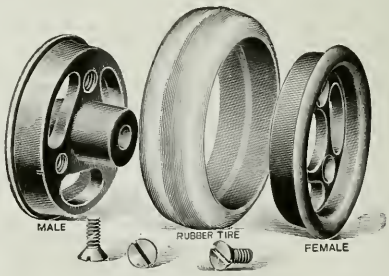
It is an axiom, which unfortunately is frequently not considered, that rolling equipment is only as good as the wheels or the casters on which it is mounted. An ambulance with flat tires is useless, a stretcher with weak forks or wheels is dangerous; a broken caster promptly puts the truck out of commission.

The wheels, tires, and rear wheel forks are frequently the weak points in invalid chair construction.

Such conclusions are obvious, but the great trouble is that the buyer of rolling equipment frequently does not realize this fact at the proper time, and does not properly safeguard his equipment at the time of purchase.

The majority of rolling equipment for hospital use is listed by the manufacturers, complete with wheels or casters, as the case may be. The buyer, before concluding the purchase, should investigate certain features of these wheels or casters to make sure that they will withstand the usage to which they will be subjected. In the case of casters, it is sometimes safer to specify certain standard types, made by firms specializing in caster manufacture, instead of the equipment supplied by the manufacturer.

The buyer of hospital equipment knows exactly for what such equipment is intended, he knows the weight that must be carried, and the strain to which the casters or parts of casters or wheels will be subjected. With such information in mind, he will find the manufacturers of



This illustration shows the ease with which tires can be removed and replaced, in certain types of casters.

wheels and casters ready to cooperate with him, and to recommend the best type of rolling equipment for the hospital's requirements.

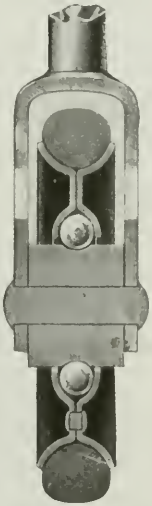
There are a number of important points which should

be given especial attention in the purchase of rolling equipment. Probably the most important is the question of tires, whether used on a caster or a wheel, for rubber or rubber compound tires are required on practically all hospital equipment. The tire, in order to give service, must fit snugly to the metal rim, so that there is no suction or movement of the tire when in use. If the tire is not continuous, attention should be directed to the manner in which the ends are joined, as an opening between the ends frequently permits the loosening of the tire. This condition will naturally be found more frequently on the cheaper grades of wheels and casters, and in this same class it is almost invariably necessary in order to remedy the defect to put on a whole new wheel. Consequently, it is important after examining the fit of the tire to learn how the tire can be replaced if damaged or worn. This as a rule can easily be accomplished in invalid chairs.

Many of the better grades of casters are also made so that new tires can be applied without special machinery, and without returning the wheel or caster to the factory.

Rubber tires are used almost entirely on invalid chairs, and also on some of the small suspension wheels used on wheeled stretchers, and the lighter types of food carts. On

In this type of caster the weight rests on the round-headed pivot stem, reducing friction to the minimum.



The illustration shows the ball-bearing caster which revolves around the axle. This method of construction eliminates much wear.

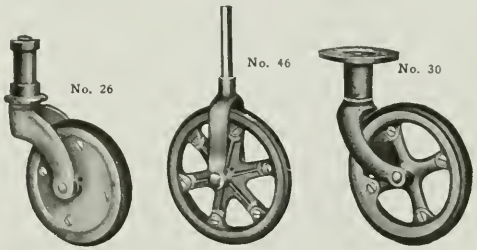
caster and truck wheels a special compound is frequently employed which is claimed to have greater wearing qualities, and less tendency to stretch than rubber tires.

The wheels used on invalid chairs, wheeled stretchers, and similar equipment, are as a rule known as the suspension type of wheels. Before purchasing these, the buyer should carefully inspect them to see that a proper weight of rim stock is used so that the wheel will retain its shape; that the spokes are in proper and even tension, so that the wheel will run true and not twist or wobble; that the rivet heads of the spokes, whether at the rim or the hub, are sufficiently large so that they will not pull through or break.

The forks are frequently weak points on invalid chairs and stretchers. Some concerns have used grey iron castings for such forks, but these are liable to break, so malleable, or even steel, casters are better. This, however, does not necessarily apply to smaller casters or truck wheels. Owing to the design of forks for such wheels, there is less strain, and grey iron castings will give complete satisfaction.

Another point which largely govern the ease of operation is the construction of the swivel, such as the small rear wheel on invalid chairs, or the swivel wheels on stretchers and trucks. Frequently these are simply a plain bearing swivel which under load causes considerable friction, and makes the operation of the wheeled chair or the stretcher more difficult and more uneven. A ball-bearing swivel adds greatly to the comfort of the patient and the ease of operation. This same principle applies to the ordinary socket caster. In many types, the weight rests on the washer directly above the horn of the caster, resulting in considerable friction, particularly after the casters become worn or rusted. There are several improved types of casters in which the entire weight rests on the round headed pivot stem, virtually eliminating friction. On larger casters a ball-bearing swivel is frequently supplied.

Another essential point is the method of fastening the



The manufacture of casters and wheels is highly specialized, and there is a type now available for practically every purpose.

wheels onto the fork. Many of the cheaper grades of casters have nothing but a rivet fitted over one end, which allows, in a great many cases, the rivet to revolve in the fork, instead of the wheel revolving around the rivet or axle. This causes the fork to wear and makes the wheel wobbly. In fact, after time it will be necessary to replace the entire caster.

Another point to remember is that the larger the wheel the easier the caster turns, and the few dollars saved by specifying smaller casters will reduce the ease of operation and frequently shorten the life of the caster.

The manufacture of casters and wheels is now highly specialized, and with the right kind of foresight the buyer can secure a caster or wheel adapted in all respects to the use for which it is designed. The buyer must remember, however, in specifying this equipment that it is well worth while to buy something good, for it will be cheaper in the end.

INCREASED COFFEE CONSUMPTION

Hospital authorities are greatly interested in the marked increase in the consumption of coffee, not only among the general public, but in their institutions as well. Not only has the consumption of coffee increased, but the ratio of increase has been higher each year. While the coffee consumed yearly averaged but five pounds per person during the years from 1860 to 1870, the consumption from 1919 to 1920 was more than twice that figure, or over twelve pounds per person.

STANDARDIZE YOUR GOWN PURCHASES

The standardization of hospital supplies has been frequently discussed, with, however, little progress towards solution. It is evident, however, that even a limited standardization will effect economy in the use, sale, and manufacture of many products.

Hospital gowns are one product in which standardization is apparently needed. Such standardization should include size as well as material specification. At the present time there are a multitude of different qualities and designs used in the hospital field. This wide divergence may be largely due to the manufacturer who offers certain materials or perhaps skimps the proportions of the garment in order to secure price reduction. In the final analysis, however, the buyer is the person responsible for the lack of standardization. If he will specify certain standard requirements in size and material, it will do much to place the manufacture and sale of hospital garments on a standardized basis.

Before this can be done intelligently some knowledge of the construction of cotton materials is necessary. All cotton fabrics are made by interlacing two sets of threads (yarn), or one set of threads running lengthwise, the other crosswise back and forth, across the piece. The method of interlacing these two sets of threads determines the weave of the fabric.

There are a variety of weaves, but ordinarily, cotton fabrics can be divided into plain or twill weaves. In the plain weave, the threads interlace regularly one by one, and give a flat, even appearance. This style of weave is called sheeting.

In a twill or drill weave the threads run one way, usually lengthwise. The cross threads, however, skip a number of threads at regular intervals so that the cloth, when finished, has the appearance of threads running diagonally through it, although they actually run at right angles.

The "count" of the goods represents the number of threads running each way in one square inch. Thus, eighty by eighty-four, sixty by seventy-six, or forty-eight by forty-eight, are the number of threads per inch running each way.

The technical expression of weight is given decimally, for example, two-seventy-five means that two and three-quarter yards will weigh a pound. Similarly four-twenty-five means four and a quarter yards will weigh a pound.

Certain weaves and weights of goods are more suitable for some garments than others. The finer the count of goods, the higher the cost. This is a well established rule.

A number of hospital authorities have agreed on the weight and count most suitable for hospital garments. In their opinion these specifications prove more suitable in quality and durability. Superintendents or hospital buyers, in requesting bids on hospital garments, will safeguard their institution requirements by not specifying a lesser quality or grade than given below. In fact, a step towards standardization can be achieved by using these grades as the standards for hospital garments.

There are two weights of goods, medium and heavy, which it is claimed can be used most advantageously in the making of operating gowns and night shirts for hospital use. For the medium grade a count of eighty by seventy-six is recommended, to weigh four-twenty-five to the pound; for the heavy grade a count of forty-eight by forty-eight to weigh two-seventy-five to the pound, this being based on thirty-six-inch material.

It is also suggested that all operating gowns and night shirts should conform to certain standard sizes. A measurement which is based on the bust or chest measure, say, forty inches, should be thirty-six inches long, and the actual measurement of the garment around the chest should be fifty inches. In other words, there should be at least ten inches of fullness allowed in each chest measurement, while the garment should measure at least sixty inches around the bottom.

Nurses' gowns should not be less than fifty-two inches in length, and the fullness of the gown should be ten inches larger than the size of the bust. Thus a garment for a forty-inch bust should actually measure fifty inches, while the measurement around the shirt at the bottom should be seventy-two inches.

Surgeons' operating gowns should be fifty-six inches long. These should have even greater fullness, and a forty-inch chest should measure sixty inches, i. e., at least twenty inches should be added to the chest measurement, while the bottom of the gown should have a circumference of seventy-eight inches.

In buying colored goods it is generally desirable to know whether the goods are yarn dyed or piece dyed. Ginghams, as a rule, are yarn dyed, i. e., the yarn is dyed before the cloth is woven.

A SMALL PRACTICAL DISH WASHER

There has long been a demand among hospitals for a small practical dish washer for use in the kitchens of smaller hospitals, and in the ward and diet kitchens of the larger institutions. There has recently been marketed a small outfit which maintains all the features of the larger machines, and yet is compact and simple.

The machine is only two feet square, approximating the size of the ordinary phonograph cabinet. It is provided with doors on three sides so that it can be placed in one corner or against the wall.

The capacity of this new dish washer is given as two thousand pieces an hour, and it is claimed that it will wash and rinse a rack full of dishes, glasses, or silverware, in thirty seconds. With this machine the dishes are not only double washed, but double rinsed and steam sterilized, if desired. No towel drying is required, and every dish and glass is taken from the machine ready for use.

Hospital authorities have virtually agreed that it is desirable to wash dishes in the ward kitchens rather than return them to the main dish washing section, and this new outfit provides a ready means for doing so.

OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

OCCUPATIONAL THERAPY IN THE CATHOLIC HOSPITALS OF MONTREAL*

BY LILY E. F. BARRY, HONORARY SECRETARY, CATHOLIC SOCIAL SERVICE GUILD, LECTURER IN STATISTICS AND HOSPITAL SOCIAL SERVICE, LOYOLA SCHOOL OF SOCIOLOGY AND SOCIAL SERVICE, MONTREAL

THE undeserved honor of addressing this distinguished audience is bestowed on me only as a poor proxy for one of the good sisters "whose right there is none to dispute" as regards priority, both in point of time, and for superior achievement in the field of hospital social service in Montreal. But a sister, when the moment comes to claim the credit for her good works, can never be found. She becomes invisible, like a pure spirit.

The Catholic Social Service Guild, which has been in existence five years, supplies, through a well equipped central bureau and staff of trained workers, the equivalent of a social service department for our Catholic hospitals and homes. The workers are trained by the Loyola School of Sociology and Social Service founded on the initiative of the Guild and now entering on its third year of existence. It is under the direction of Loyola College. The two years course, comprising a thorough grounding in basic sciences, with field work and visits to institutions, leads to a diploma granted by Montreal University.

An important link between the hospitals and the Guild is supplied by the Loyola Convalescent Home, carried on by the Catholic Women's League. Here the social worker may study a case at close quarters, with a view to placing in favorable environment when the working capacity has been restored. The attending physicians and devoted staff lend their hearty cooperation in this direction.

The employment department of the central bureau of the Guild is one of its most successful features. A monthly report is sent to the government for publication in the *Labour Gazette*. Special attention is paid to the placement of handicapped persons discharged from the various hospitals. Our activities extend to all classes of workers; and this is a distinct advantage, as it brings us in contact with a larger number of employers, many of whom yield to the social worker's plea on behalf of the handicapped man or woman, a trial of whom not infrequently gives results satisfactory to all concerned.

To understand the difficulties that confront us, it is important to keep in mind the numerical proportion of the English-speaking Catholic section to the total population. Our territory is bounded by a line drawn around fourteen points—or parishes—(a fashionable number). Only about 60,000 souls, or 13.3 per cent of the entire population come directly under our influence.

We are but a thin strip compared to the French-speaking section, which extends over eighty odd parishes and represents about two-thirds of the population. A French central bureau, almost the counterpart of ours, facilitates cooperation in social service. We maintain close and harmonious relations with the French element; but, in practice, it is found impossible to bring the work of the two sections up to one uniform standard in all directions, or to secure united action on certain issues which affect the interests of the two divisions in a different way. I do not feel hopeful that this will ever be done; nor, in view of distinctive, deep-rooted racial characteristics, traditions and prejudices, that it is necessary or wise to attempt it. We have, however, the inestimable advantage of unified command under the Archbishop, and of our common faith, which creates an indissoluble bond of sympathy and good-will.

An intimate knowledge of both peoples—derived from long and close personal relations with them—convinces one that if each group receives frank and generous encouragement in an effort to reach its highest level, and, through its leaders, to cooperate in a friendly way with other groups, an ideal community would emerge much sooner from this plan of development than from one based on the principle of the bed of Procustes—in which the victims were made to fit exactly by having their superfluous length cut off, or by forcible stretching, as the occasion demanded.

As far as problems of employment are concerned, our experience goes to show that race and creed lines tend happily to disappear when the worker is qualified for a job, or if the job appeals to the worker. Except where inability to speak or write the language is a real handicap, or where religious obligations might interfere with regularity of service, the question of race or creed is scarcely ever mentioned.

Occupational therapy has not been introduced into our general hospitals such as Notre Dame Hospital and the Hotel Dieu, nor is it likely to be, because it has not been found necessary or feasible. The number of hospital beds for emergencies in Montreal being—all told—only about 2,000 for a population of 801,000, it is imperative

*Read at the Social Service Section of the American Hospital Association Conference, Montreal, Canada, October 4-8, 1920.

that patients be discharged with the least possible delay. When illness or convalescence promises to be of long duration, the patient is transferred to one of the special hospitals with which Montreal is fortunately well supplied. This change is the more easily made as there is often relationship between the sister hospitals also the director of municipal assistance has power to effect such removals when beds become vacant in the institutions designated by the hospital authorities or the social worker.

It is in these special hospitals such as are conducted by the Grey Nuns and the Sisters of Providence, or the reformatories, including the Catholic Female Jail, under the direction of the Sisters of the Good Shepherd, in the Maternity Hospital of the Sisters of Mercy, and the home conducted by the Little Sisters of the Poor, that the most interesting studies may be made of occupational therapy and preparation of the handicapped for reappearance in the industrial world—failing which, they are rendered self-supporting in the institution, or in their own homes.

The sisters—whose lives are wholly consecrated to the service of the poor and helpless, who are never off duty nor absent from their post in the way of the secular worker, and who, in addition to the severe training of the novitiate, have long experience in practical work, brought to a high standard by previous generations imbued with the same lofty principles and urged by the same compelling motives of service to others—have an influence as teachers which cannot easily be surpassed by persons lacking their superfine qualifications. Habitually filling every moment of the day with useful occupation, the sisters are naturally ardent advocates as well as edifying exemplars of the value of work as a saving factor in every sense of the word. Therefore, they rejoice in an opportunity to encourage a patient's recovery and spirits by the tonic of light employment. This is offered in such an ingenious variety of interesting forms that a volume would not be sufficient to do justice to a description of such works. Plain sewing and knitting, embroidery, lacemaking, dressmaking, artificial flowers, modeling in wax or clay, typewriting and typesetting, bookbinding, Braille work, basket-weaving, bead work, carpentry, and metal work are taught with such marked success to defectives that the normal individual, viewing the results, is apt to feel a most embarrassing sense of personal inferiority.

When fit for more active employment, patients are trained to do housework, cooking, carpet-weaving, painting, care of furnaces and powerhouse, gardening, care of horses, driving, and other outdoor tasks. In the present acute scarcity of labor, especially of domestic servants, no difficulty is experienced in finding places in private families or business establishments for persons trained in our religious institutions and recommended by the sisters. Therefore it is seldom necessary for the Guild to intervene except where a patient does not happen to fit into any opening on the list kept at the institution.

Our central bureau has more contacts with the large employers of labor and therefore greater facilities for providing the higher remuneration needed by the father of a family.

A sympathetic attitude to these problems on the part of prominent citizens, professional men, members of the Guild, and other public-spirited, philanthropic persons, has greatly encouraged us in the attempt to find employment for the handicapped. Last year the Guild was notified of 1,748 vacancies. One hundred and ninety-eight permanent places and 787 temporary jobs were secured for our 1,176 applicants. Five hundred and seventy-two calls for help could not be met, though 191 applicants had to be turned away as unsuitable. Of these, the greater number were hopelessly unfit through age, intemperance, or incapacity from lack of training; very few of our applicants are free from handicap of some sort. The normal worker does not require much assistance in finding employment under existing conditions.

Special statistics covering this department of social activity in our hospitals and homes are not available; therefore I can give only a general notion of the amount of work being done and of its value to the community, at the same time extending to all our visitors, on behalf of the sisters, a cordial invitation to visit the institutions I have named, and see for themselves how these problems are met. One gratifying feature, common to them all, is the number of handicapped persons regularly employed by them, who in all probability would not be accepted elsewhere.

In one of our hospitals (the Hotel Dieu) a French ex-soldier, a widower, aged thirty-nine, who lost a leg in the war, looks after the garden. He was formerly an agricultural laborer. The sisters are delighted with his intelligence and thrift. He has succeeded in producing twenty-one kinds of vegetables where only five or six grew before, guarding against failure by a well arranged succession of crops.

Another ex-patient, formerly a chauffeur, disfigured by an abnormal growth in one eye, helps in the kitchen, peels vegetables, and makes himself generally useful. He is a cheerful, devout man who spends much of his leisure in the chapel. A truck elevator in the same institution is in charge of an ex-patient, very heavy and stout, who drags one leg. When not in his car, he busies himself in various ways, making keys, chains, picture frames, or any repairs; in fact is so useful that he is regarded as a household treasure.

The Grey Nuns, who have stretched a chain of fifteen hospitals across Canada and the United States, and who cared for 8,500 returned soldiers in their Guy Street Hospital, have a vast experience in handling every sort of human problem. The unmarried or deserted mother and her child, against whom every door is closed, may freely enter the Foundling Hospital and receive training as a nurse or in domestic work. In their special hospitals for the blind, for deaf mutes, and nervous patients, as in their splendid orphanages, constructive work of the highest order is done. The finest demonstrations in occupational therapy can be seen in these institutions.

The blind and partially blind are taught to be self-supporting by making brooms, caning chairs, tuning pianos, printing Braille, map-modeling, dressmaking, and tailoring. Deaf and dumb patients excel in needlework, clerical work, typewriting, and other remunerative occupations, seldom becoming a burden to their families or the community.

The Sisters of Providence, founded seventy-five years ago by Madam Gamelin of Montreal, have become especially prominent in social service, their noble aim being to care more particularly for the classes of suffering poor who are refused admission to other homes and hospitals. Their hospital for incurables would alone earn for them the deep gratitude of the city. It is a magnificent demonstration of the highest form of charity. Not many of the pitiful cases gathered in here are of the workers' class; but when the condition permits, instruction is given in some form of employment that shortens the weary hours and promises remuneration. A tuberculous girl was made happy recently when the Guild disposed of a piece of lace she had learned to make in the hospital—her first attempt—for the sum of $2. On her

second piece she was able to put a price of $3.50. The cheering effect of this new interest was noticeable in her improved health and spirits. A young girl, partly paralyzed, having one good arm, runs a passenger elevator which moves slowly and is never crowded. She is pleased and proud to be useful and self-supporting.

Occupational therapy is systematically practiced at the vast St. Jean de Dieu Hospital for the Insane, conducted by the Sisters of Providence. In the bi-monthly review of cases by the attending physicians and sisters, special attention is paid to the allotment and regulation of work from a therapeutic standpoint.

Two thousand patients are housed in the bright, cheerful pavilions. As many as possible are trained to work in the different departments. On a recent visit I found them preparing the meals, washing dishes, polishing floors, working in the garden, gathering apples in the orchard; also doing dressmaking, tailoring, carpet-weaving, painting, and a hundred other useful things as well as, if not better than, the average normal worker of the same grade. Musical and dramatic talent is carefully cultivated and artistic leanings are encouraged. One patient makes remarkably good mosaic work from the horns of cows killed in the abattoir. The material takes a high polish and is built up into vases and other decorative pieces.

The Sisters of Providence have also obtained good results in classes for epileptics. In the Hospice Gamelin, young girls afflicted with this disease are trained to work in the dining room and to help with housework. They also follow regular studies at stated hours. In the country house at Belocil, an open-air school for incurable children is in charge of sisters who have been trained in Belgium, Switzerland, Germany, and Paris. They are most practical and able to report marked improvement in cases committed to their care. Gardening is the favorite occupation, each child having its own little plot to cultivate. They are made to feel at home and happy, with opportunities for self-expression in painting, singing, acting, and other cheerful diversions.

Their work has to be varied, however, and the results are not permanent. It is costly, and yields no return. These cases must be artificially supported, mentally and spiritually. Left to themselves or removed to less favorable environment, they deteriorate, and when brought back to the home are in a worse state than before. Meddlesome people with good intentions but misplaced sympathy sometimes seek to interfere with the plans of the sisters, with sad consequences both for the patient and the community.

The infinite patience of the sisters is attested by the fact that when a patient is recognized as of the unteachable class—unable to do anything at all—the expedient is tried of giving her something to undo, often with complete success. Tearing up rags for carpet weaving, unraveling socks, or ripping up garments to be remade is congenial and useful occupation for those who have a taste for destruction.

The Sisters of Providence follow up their work by visiting the homes of the poor, giving relief, or nursing service as required, and finding employment for those who are able to work. Their anti-tuberculosis dispensary, the Bruchesi Institute, is an important health center at the East End.

The Sisters of the Good Shepherd confine their efforts strictly to reformative work among girls and women. The delinquent child, the wayward girl, the victim of alcohol or cocain is received as a voluntary penitent, or is committed to the institution for a term by order of the court. Cases requiring medical treatment are, therefore, not received. Occupation is the rule for every inmate. Laundry work and gardening have been found most beneficial for alcoholic and neurasthenic cases. But it is hardly possible to name an indoor industry which is not practiced under the supervision of these devoted teachers and saviors of human derelicts.

The Sisters of Mercy, in their splendid Maternity Hospital for unmarried mothers, make a long period of residence a condition of admission. The patient receives valuable training in nursing, domestic service, needlework, or clerical work, according to her aptitude, and is physically, mentally, and morally rehabilitated by the period of wholesome seclusion, study, and practical work under skilled supervision.

The debt of gratitude the community owes the sisters cannot be overstated. An imaginative social worker has drawn a lurid picture of the effect on Montreal of turning loose the ten thousand or more inmates of the homes and hospitals conducted by the sisters if these devoted women should elect simultaneously to retire from social service into the bosom of their families. The procession of our aged, incurables, demented, orphans, paralyzed, delinquent, tuberculous, epileptic, deaf mute, and blind fellow citizens would surely help us all to realize the nature and extent of the sacrifices being made by these noble workers whose names are not even permitted to be mentioned in public. The complete statistics of their deeds of mercy shall not be known until the Recording Angel is pleased to reveal them.

Meanwhile, as there are doubtless some persons who would be more impressed by the opinion of a living authority still in the flesh, I am pleased to quote the tribute paid to the hospital managed by our Catholic sisters, by John D. Rockefeller, who said on one occasion:

"That they have surpassed all other organizations in economy of administration and faithful performance of duty is acknowledged by the governments of many states besides our own, who are glad to entrust them with important responsibilities."

SIX "MUSTS" FOR OCCUPATIONAL THERAPY

"If an institution is to carry on occupational therapy successfully, six things must be done," says Horatio M. Pollock, in the Maryland Psychiatric Quarterly. (1) Suitable buildings or rooms, and adequate equipment must be provided; (2) trained teachers must be employed; (3) a systematic progressive course of instruction must be outlined and followed; (4) an adequate system of records must be used; (5) a revolving capital fund must be provided; and (6) there must be full cooperation between physicians, nurses, and teachers of occupational therapy.

CRITICIZE THIS CARD INDEX FORM

It is very desirable that there should be a uniform system of recording clinical effects of prescribed occupations. With a generally accepted form in use, we shall have records of real value, not only to the active aides, but to the physicians who ought to be impressed with the importance of this new branch of medicine. An occupational therapy record which is written into the general record, or which is spread out over several filled-in blanks, is likely to be submerged and lost. A record which is separate and distinct, which can be kept on file for a while, and then clipped on to the medical record, will always be accessible and clear. It must also be brief. A proposed card index form, which seems to meet most of the requirements, is given below, and occupation teachers and directors are

requested to study it and to make any suggestions which may occur to them as desirable, communicating with Dr. Herbert J. Hall, Devereux Mansion, Marblehead, Mass., or Mrs. Carl Henry Davis, Milwaukee Downer College, Milwaukee, Wisconsin. Favorable or adverse criticism will be equally welcome. This form, which is being tried out at Devereux Mansion, has been o. k.'d by Major A. C. Monahan, who is in charge of reconstruction activities at Walter Reed Hospital, Washington, D. C.

Occupational Therapy—Physio Therapy

Date.....

Name of Hospital or Sanatorium or other Agency

.....

Name of Patient Age M. or F. Ref: to Medical Record

....

Medical diagnosis (to be copied from medical record).

.....

Occupational or Physio Therapeutic treatment employed.

.....

Estimate of possible results of treatment. Signed by medical officer and by O. T. or P. T. aide.

Weekly progress. Kind of treatment. Approximate number of hours per day.

.....

1st week.

.....

2nd week.

.....

3rd week.

.....

4th week.

Estimate of results accomplished during the month. To be signed by medical officer and O. T. or P. T. aide.

.....

Morale.

.....

Physical improvement.

.....

Technical skill.

Notes:

Signed—Medical Officer: Signed—O. T. or P. T. Aide:

.....

NEWS ITEMS

Miss Meta Rupp, formerly head aide at Fox Hills Hospital, Staten Island, has been appointed assistant to the executive director of the New York State Society for the Promotion of Occupational Therapy.

The authorities of the Boston City Hospital have set apart a room in the Nurses' Home for the use of nurses who are studying this special branch of nursing. Much courtesy has been shown the pupils in this institution.

Miss Jessie Stark has been appointed teacher of occupational therapy in the tuberculosis wards at Bellevue Hospital. Miss Stark served four years in the military hospitals in Canada and is an experienced and resourceful aide.

The occupational therapy work at the National Sanatorium is being carried on by the Federal Board for Vocational Education under the immediate charge of Miss Grace Bryant, formerly of the Army Sanatorium, at Oteen, N. C.

The United States Public Health Service has taken over the occupational department and staff at the Wisconsin Psychiatric Institute, Mendota, Wis. Mr. Russell Bird, who organized the department, and who is now in charge of the Public Health Service Hospital, was for a number of years assistant to the director of men's occupations at Bloomingdale, White Plains, New York.

Miss Helen Washburn, formerly in the United States Public Health Service, stationed first at New Haven, Conn., and later at Oteen, N. C., has left the service and has been given charge of occupational therapy at Monroe County (tuberculous) Sanatorium, Rochester, N. Y.

The medical service of the National Tuberculosis Association proposes to organize a representative exhibit of occupational therapy work in sanatoriums throughout the country, to be displayed at the annual meeting of the National Association to be held in New York City next June.

The National Sanatorium was formerly the Mountain Branch of the National Soldiers' Home for Disabled Volunteer Soldiers, and was reorganized as a sanatorium for ex-service men of the World War under an act of Congress of June, 1920, authorizing the use of National Soldiers' Homes for the care of men disabled in the World War.

A very definite forecast of the interest which will be taken in the next annual conference of the National Society for the Promotion of Occupational Therapy to be held in Baltimore, Md., next fall, may be drawn from the fact that about seventy-five workers have affiliated themselves with the society in the past three months. Applications are continuing to come in to the secretary, Louis J. Haas, Bloomingdale Hospital, White Plains, New York.

A large measure of occupational therapy is being provided for at the National Sanatorium, Johnson City, Tennessee, which is a 1,000-bed institution devoted to the treatment of tuberculous ex-service men. Dr. Glenford Bellis, the superintendent, formerly of Muirdale Sanatorium, Wauwatosa, Milwaukee, stated recently that he expects that 700 out of the 1,000 patients will be engaged in some form of therapeutic activity. Dr. Bellis is a great believer in this work, and has adopted the special term of "industrial recreation" for the stage when the patients are able to leave the wards or "cure porches," and go to the special arts and crafts rooms.

Miss Mary Putnam of the New York Visiting Committee, who has done valuable work in occupational therapy at Bellevue Hospital, has resigned her position in New York and will go to the Green Gables Sanatorium, at Lincoln, Nebraska, as director of therapeutic occupations. Dr. Benjamin F. Bailey, who is head of the institution, promises a free hand. Miss Putman's record at Devereux Mansion in Marblehead, Mass., at the State Hospital in Middletown, Conn., as well as in New York City, assures for the Nebraska institution a high place in occupational therapy circles. Before going to Nebraska, Miss Putman will spend two months organizing the occupational therapy department of the Boston Psychopathic Hospital. Miss Putman will contribute regularly to the occupational therapy section of THE MODERN HOSPITAL, giving notes of progress in the new field.

Occupational therapy was largely represented in the pageant of Jewish Charities held at the Hotel Pennsylvania December 14 to 16, when ninety-two social service institutions, affiliated with the Federation for Support of Jewish Charities, demonstrated their work. The Montefiore Home and Hospital for chronic cripples showed a group of patients in wheel chairs demonstrating their manual work. A physical training instructor (one of the nine employed in the Hospital for Deformities and Joint Diseases) demonstrated physical drill and exercise which the cripples receive in that hospital. The exhibit mentioned was under the women's division of the ways and means committee of the Federation for the Support of Jewish Philanthropic Societies, of which Mrs. Sidney Borg is chairman. Mrs. Borg has been consistently interested in occupational therapy for several years, and has been one of its most loyal supporters.

Dr. I. M. Rubinow, director of the American Zionist Medical Unit, has gone to Palestine, with a commission to build a hospital in Tiberias, to cost between $50,000 and $70,000. Other activities which Dr. Rubinow will engage in will be an anti-malarial campaign, and the medical control of immigration.

HEALTH AND MODERN INDUSTRY

FIELD HOSPITALS IN CONSTRUCTION WORK*

BY J. P. CLEARY, M.D., DU PONT ENGINEERING COMPANY, DETROIT, MICHIGAN

THE importance of field hospitals in construction work is steadily gaining greater recognition. They have, indeed, become an indispensable part of organizations in that particular field of labor. It is my purpose, or rather my desire, to suggest some data from which a firmer conviction may be gained of their value; value that is both practical and altruistic. It may be added that full discussion of the subject in all its ramifications would consume more time than my hearers have to give, and hence only the main ideas relating to the matter will be advanced.

In the initial stages of these components of the complete scheme of a working plant, rendering first aid to the injured seemed the end at which to aim, but field hospital service has obviously become extended far beyond that original scope. It now incorporates within the bounds of its efforts the conserving of the general health of the workmen, their social welfare, and their relative fitness for the tasks they assume.

The efficiency of the worker in the strict line of his employment is easily seen to depend to a certain degree upon his home life, his general environment, and the entire social status. These facts appear, perhaps, to savor of some sort of scientific theory, and invoke sociology or kindred ideas of wide projection, but one gains easily the notion that herein science is not entirely technical, nor the principles too involved for application in industrial and labor problems.

Accepting as axiomatic that the interests of both the employer and employee are identical in the last analysis, it behooves all concerned to consider in some detail the practical advantages of field hospital service.

The employer derives what may be styled a mercenary benefit, but he also enjoys the reflex action of practical humanity. The time, the very essence of constructive work, which would otherwise be wasted by removal of an injured workman to a hospital or physician's office some distance away from the immediate field of labor, is saved, and also the attendant expense. The employer has the chance to show sincere sympathy for the suffering employee by providing the means of caring for the injured on the "home grounds." Then, quick conveyance to some distant hospital or office entails in itself aggravation of the accident or disease. Measured in dollars and cents, elements to be watched in these days, the economy of treatment nearby cannot escape attention. The opportunity to administer instant remedies, or make quick diagnoses, and thus obtain a grasp upon the malady or injury immediately, can easily be figured by business men in terms of money. The return of the employee to his work as quickly as possible is an important consideration, and in this desideratum employer and employee share equally.

The cost of installing and maintaining a hospital is more than offset by the advantages derived. Insurance companies give a lower rate on liability insurance to concerns maintaining a first aid station at their plants. The expenditure for the physician's services, the supplies used, the equipment, and all other expenses can be easily ascertained, but it would be difficult, indeed, to determine the actual monetary returns from the investment, for the influences of the plant hospital are wide and numerous.

In the construction of a plant for the Cadillac Motor Car Company in Detroit, Mich., the Du Pont Engineering Company, from August, 1919, to August, 1920, employed, all told, about 17,000 men, the maximum at any one time being about 3,600, and the minimum about 800. Construction work has many hazards, probably many more than exist in industries engaged in operation. During the year referred to there were 4,490 injuries. Eighty of the number were major injuries, necessitating loss of time. Of these eighty injuries, four resulted fatally, one in permanent, total disability, and the remaining seventy-five caused a loss of approximately 14,752 working hours, an average of 196.6 hours per major accident. In addition to the 4,490 first dressings or treatments administered, approximately 3,229 redressings were required, amounting to 7,719 treatments for injuries, administered during the year.

It is estimated that 3,500 medical cases were treated during this time, making a total of 11,219 treatments given. During the influenza epidemic last winter, on an average of thirty medical cases were treated every day. Of the 11,219 treatments, perhaps 1,432 were required in cases of major injuries, leaving 9,787 treatments administered for minor injuries or illness.

The cost of equipping and maintaining the plant hospital here for the period mentioned amounted to $6,800. Of this amount, $5,900 was applied to the treatment of minor injuries and medical cases. Dividing this amount by 9,787, the number of treatments, gives an average cost of sixty cents each.

During this period of time, 15,765 men were examined by the medical department, and 15,615 were accepted, and placed on the company's roll. In addition to this num-

*Delivered before the Construction Section at the Ninth Annual Safety Council, at Milwaukee, Wisconsin, September 29, 1920.

ber, there were approximately 2,500 men on the rolls of the sub-contractors during this time, making a total of 18,115 men who were protected by the medical department during the year in question. This amounts to an expenditure of approximately thirty-seven cents for each man so protected.

During the same year there were 366 penetrating wounds of the feet, resulting from stepping on nails. Of that number, two, or .54 of 1 per cent, resulted in lost time.

It may be of general interest to know that in the dye works of the Du Pont Company at Wilmington, Del., during the year 1919, with an average working force of 625 men, the compensation paid during that period was only $6.00, a really remarkable record. In the same plant 7,778 medical and accident cases were treated during the year referred to, at a total cost of $2,383.41, or an average of thirty-one cents per case. In the first six months of 1920, the Wilmington plant had 1,207 surgical cases, and of that number only five were serious enough to necessitate any loss of time.

To be of greatest value, the field hospital should be centrally located, so that it may be easily and quickly reached by the injured. Its location should be pointed out to all new employees before they start to work. Whenever possible, the employment department should be in close proximity to the hospital, so as to facilitate the examination of applicants for work. The hospital should not be placed in a noisy portion of the plant where the rumbling of heavy trucks or machinery would interfere with the efficient use of a stethoscope in making physical examinations. For industries employing more than a thousand men, there should be a plant dispensary and a physician constantly in attendance. The size and extent of hospital equipment necessary depends upon the number of employees. For an industry employing a large number of men, the hospital should contain a waiting room equipped with chairs or benches, and a quiet office where files and a few cots may be kept, so that employees may lie down to overcome some temporary condition, and return to work within an hour or two. There should be an examining room for the doctor. This room should be quiet, and should contain an examining table, a writing desk, several chairs, and other necessary equipment. It should be closed off from the other rooms, so that confidential conversations with the various employees may be held here. In addition, the hospital should contain a surgical room, where accident cases can receive immediate attention. An x-ray machine and sterilizing room would also be valuable additions.

Where the number of employees would not justify the expense of maintaining a physician in the plant, arrangements should be made with a nearby physician to take care of accident cases, and to allow his office to be used for the purpose of making the medical examinations. In places where such an arrangement cannot be made, one or two promising men, such as foremen, could be easily trained to administer first aid. In plants engaged in night work, men with such training would be of considerable value. All plants, no matter how small the number of employees, should have first aid kits available for immediate use.

To obtain the best possible results, the cooperation of the employees is necessary. No effort should be spared to bring them to a realization of the importance of reporting for medical treatment immediately after an accident. They should be made to understand that they will not be docked for the time spent in having their injuries treated. To overcome the hesitancy of the workmen about going to the hospital for treatment of slight injuries, a first aid printed slip should be given by the foremen to the injured employees to take to the hospital; this seems to impress upon the injured employee the necessity of receiving medical attention. All injuries, no matter how slight, should be given medical attention, the foremen should be made to realize the importance of this.

Another phase of the value of field hospitals in construction work is afforded by the physical examination of applicants for employment. Contagious and infectious diseases, heart lesions, impaired vision, deformities, malformation, and defects of all kinds, both congenital and acquired, may thus be detected, and unfit applicants can be kept from communicating actual disease to their fellow workmen, or increasing the hazards of accident through their neglect, oversight, or bodily defect. It is needless to remark how this branch of the subject expands upon meditation. It has become a recognized obligation, morally and legally binding employers to eliminate from their forces all whose ailments or defects are such as to enhance the risk of accidents or transmit disease. All must remember how steadily these doctrines of denying employment to the unfit have progressed in acceptance. Human life cannot be placed in jeopardy by careless hiring of the members of the working group.

The field hospital service can be utilized to restore to health those temporarily incapacitated by minor ailments. By this means the labor unit is conserved. The saving of mankind has become of supreme importance, certainly of equal and as far reaching value to the future as the conservation of material resources, in the development of which the human factor is demanded. Such care responds to the dictates of modern thought. It spells wider prosperity.

The doctor can be of inestimable value to a construction organization, by a proper and sympathetic attitude toward the workmen, and by his willingness to show the men that the company has their interests at heart, both in physical examination and the treating of their injuries. In the physical examination of applicants for employment, the employee has the advantage of an early discovery of disease, and therefore a more rapid and sure cure, while to the employer there is a reduction in loss of time due to sickness and epidemics. To those employees with organic diseases, the danger of overwork and hazardous occupations can be shown, and the employer gains by a reduction in risks for compensation due to accident disability, deformities, and death. In advising and treating the sick there is brought to the employees, protection from contagious diseases and to the employer a steadier working force. By efficient medical treatment the employer gains an increase in the general efficiency of the working force, and the good will of the employees.

The field hospital has both the mercenary and the altruistic phase, the ledger showing a profit, and the heart feeling a warmer pulsation. In conclusion, it may not seem too burdensome to recur to one branch of service not directly within the hospital's scope, but so allied with it that it can hardly be overlooked. It relates to the possibility of the workmen revealing to the doctor their home influences, the grievances, fancied or real, within their homes. It requires no argument to gain agreement that such tribulations affect the efficiency of a workman; perplexity, brooding, suffering, mental anguish, all perhaps the products of transitory unhappiness, impair the usefulness of the employee. Field hospital work affords opportunity for the conscientious doctor to give counsel, and often adjust these differences and disturbing factors in the workman's life.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.

Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 15 W. 43rd Street, New York

WHAT IS A DISPENSARY?

BY ANNA MANN RICHARDSON, M. D., NEW YORK CITY

WHAT is a dispensary? What do its friends, clients, and employees believe it to be?

To the hospital it is a convenient assistant. It serves as a medium through which to keep a point of contact with patients who have not fully recovered their health while in the hospital. It selects from among its many clients suitable cases for bed care. It receives and treats patients applying for hospital care, but not really needing it. It becomes an inconvenience, however, when directly connected with the hospital, so as to be dependent upon the laboratories of the latter. Dispensary needs are usually regarded as of minor importance, because the dispensary patients are so much less seriously afflicted than are those of the hospital.

To the physician, whether connected with the dispensary or not, the significance of the "outpatient department" is in accordance with his professional status and temperament. The recent graduate finds in the dispensary an interesting outlet for his newly acquired knowledge, and a clientele delivered at his door, as it were. Patients have no choice of physicians, and by prompt and regular attendance he can assure himself of a following, despite inexperience. The more experienced doctor finds dispensary work narrowing. Rare and unfamiliar conditions come to him for treatment in the dispensary with less and less frequency, as time goes on. Constipation, headaches, coughs and colds, follow each other in rapid succession, absorbing the limited time he can spare for dispensary work. If he is more interested in disease than in human beings, he is tempted to drop out of the work, and remains only because it may lead to a hospital appointment, affording him opportunity to treat really sick people. From the viewpoint of the older, and still more experienced physician, dispensary work provides opportunity to teach students and younger men, which imparting of knowledge is a satisfaction in itself. If there are no students, the actual work, assistance and advice freely given to troubled souls, may be sufficient recompense.

To the apothecary, registrar, filing clerk, and clinic nurse, the dispensary is their individual place of employment. They give service on a more or less rigid time basis, and resent overzealous interest of physicians in patients, interest that takes time and keeps them on duty over hours. To these clinic assistants, speed in handling patients is the acme of dispensary efficiency, and physicians devoting an hour to four or five patients, are regarded with scorn.

The patient with previous experience regards the dispensary, first, as a possible source of relief from discomfort. The cough or the pain may be lessened through the medium of medicine, costing less than that purchased at the drug store; and in addition, judgment regarding his condition will be supplied. Confirmation of the patient's own interpretation of his trouble is usually sought. Secondly, the dispensary is the agency through which to consult specialists, its complete equipment and many doctors make it an excellent place to obtain special advice at a low cost. The usual debate for the patient who has not established a dispensary connection, is, shall I go to the druggist and get the medicine that cured my neighbor of his cough, or shall I take time to go to the clinic? Frequently the decision is in favor of the clinic, because the potential patient has more time than money. Again, the dispensary is resorted to when self-medication has failed, neighbors and the druggist have disagreed as to just what is the trouble, or what will relieve it, and a new opinion is desired.

The medical student usually regards the dispensary as a minor hospital. Lesser things, surgically, are done there; less serious cases are seen; the work is not medically dramatic. He may have more responsibility for the patient's welfare, but he is only thus trusted because of the mild nature of the condition. If he is of a given temperament, he will convince himself that every patient is a neurotic, with no organic difficulty, while if of another temperament, he will be absolutely sure that the majority of his patients have something deadly the matter with them. Whatever his disposition, he is sure to feel that the relief of the disease from which the patient is suffering is the main concern of the dispensary.

The average well-to-do lay individual in the community thinks the dispensaries are necessary evils; "The poor we have always with us," and the poor need care when sick. The support of the work is one of many worthy causes calling for consideration.

Social Workers' Point of View

Social workers differ from all others associated with the dispensary, because they are not interested primarily in the details of the physical condition of the patient, which they believe to be the concern of the doctors and nurses. The social workers are concerned with the progress and comfort of the patient, and with the problem of teaching him to live so as to avoid disease and illness. This means that they are interested in the causes of his illness rather than in the effects, and they work to get at the causes. These causes are even more varied and individual than the diseases or weaknesses resulting therefrom. Social

workers conceive the removal of such causes to be their contribution to the welfare of the patient, and to dispensary accomplishment.

All these attitudes toward the dispensary have been correct at some stage of its development. Today, the social service workers are seemingly the only group with some understanding of the present state of medical progress in its relation to the care of dispensary patients.

Individuals working in various departments have seen the vision of dispensary possibilities, but not in sufficient numbers to effect reconstruction. The dispensary has a unique opportunity to do constructive health work. Its clientele is composed of people seeking help for conditions that can actually be relieved, in the majority of instances. The importance of the fact that the patients seek the dispensary cannot be over-emphasized in its bearing on their care. They recognize that they are in trouble, and are seeking help; they are in a receptive mental attitude. A little wise care at this juncture may avoid many serious consequences. There are two essentials for constructive health education, desire and occasion, and the presence of these provide for the dispensary its unique opportunity. When this becomes generally recognized, the hospital will appreciate that the distressing cases filling its wards are the results of early neglect, and might have been averted through a better organization of dispensaries. It will exert all possible effort to aid in the efficient functioning of the dispensaries. The laboratories also will then be ready to further all dispensary work, and to assist in every way to make it thorough and complete.

Causes of Illness Will Be Sought

Doctors, old and young, will more earnestly endeavor, with the aid of social service, to comprehend the reasons underlying their patients' physical ills, and will try to understand the situation, in their homes, at their work, and in all phases of their lives. They will assure themselves that they are getting at the real trouble in each individual case, and will endeavor to see that the patient understands his condition, and what to do in the effort to relieve it. Dispensary cases will no longer be monotonous. Each will stand out as an individual problem, with infinite possibilities.

Patients will find that by following directions given, applicable to their special conditions, trouble will be relieved before it has advanced too far, and they will seek advice and periodic examinations. The apothecary's work will be reduced in volume, and other employees will have the satisfaction of working more effectively, because their labors will be increasingly preventive rather than curative.

Last, but not least, the general public will learn that the dispensary is not a necessary evil and burden, maintained to patch up diseased bodies, but a veritable fount of inspiration in the care of themselves and their children, and a source of wise and pertinent counsel in all matters of public health.

With this broader use of the real opportunities of the dispensary, all its friends, clients, and employees will find themselves united in the common purpose of controlling disease and preventing its development; they will "beat the hospital to it," and stamp out of existence many of the conditions which place so many patients in hospital wards.

The most precious possession of mankind is the human experience won through the vision of great moral ideals, the eager pursuit of them, joy and sorrow in the service of them, life, love, death, and hope, under their reign.—G. A. Gordon.

THE GOOD SAMARITAN DISPENSARY

Dr. Louis Faugeres Bishop, president of the Good Samaritan Dispensary of New York, in the last annual report (1919) of this institution, writes the following notable program for dispensary service: The dispensary should stand for the ideal of improving the standard of medical practice and the condition of public health. This means that a distinct effort should be made toward public health education in connection with our work.

Dispensaries were originally started in the seventeenth century with the idea of supplying needed medical help to the destitute. Now, the great dispensaries of the world are public health centers where a high standard of medical practice is carried on to give the general public the same high class service that the rich are able to pay for.

The question of where the average physician belongs in this new order of things is a difficult one to answer and is a matter of world-wide debate at the present time. It would seem, however, that unless the care of the health of the people is to become a matter of pure state control and administration, there must be institutions cooperating with the practicing physicians of the city where they can obtain for their patients high class special assistance, retaining the patients under their own general supervision. The idea of abolishing by means of law the competition between public medical philanthropy, and those physicians who treat the same people in private, has utterly failed and must be abandoned. For that must be substituted cooperation, where the dispensary helps the average physician to bring his practice up to a satisfactory degree of technical completeness, for which service the patient must pay enough to support the work when the matter of rent, cost of administration, profit and interest on capital are provided by the endowment of the institution.

REPORTING CASES OF TUBERCULOSIS NEGLECTED

The United States Public Health Service has issued figures on the reporting of pulmonary tuberculosis for the year 1918, which are very discouraging to those who are working for the control of this disease through the health authorities. Out of 347 cities of 10,000 to 100,000 population, only eleven showed more than five cases reported for every annual death. About 40 per cent of this group of cities had fewer cases reported than deaths.

Among the group of cities of 100,000 population or over, the situation is even worse. Not one of this group of sixty-six cities showed as many as five cases reported for every annual death, and only one, Seattle, Wash., showed as many as three reported.

On a statewide basis, out of thirty-eight states reporting, not one showed more than 1.8 cases reported for each annual death, and only six of this group showed more living cases than annual deaths.

The fact that the fundamental principle of all epidemiological work requires that knowledge of the living cases of an infectious disease be in the hands of the health authorities, makes one realize how serious such a situation as that found by the Public Health Service is. The problem of reporting cases is fundamentally one of education, both of the lay and medical public. Secondarily, it is one of having an organization for digging out cases that everyone knows exist in the average American community. We must provide enough nurses, clinics, medical consultants, and other agencies to find the cases, for until we do, the campaign against tuberculosis will lag.

VENEREAL DISEASES AND THE HOSPITAL

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PUBLIC HEALTH COMMITTEE REPORTS ON DISPENSARY SITUATION

In *Social Hygiene* for July, 1920, there appears a most interesting article on "Venereal Disease Clinics." This article is a section of the report of an exhaustive investigation of clinical and dispensary facilities in New York City, which was conducted during the year 1919 by the Public Health Committee of the New York Academy of Medicine, under the direction of Dr. E. H. Lewinski-Corwin, its executive secretary.

The report covered every phase of the dispensary situation. Many thousands of records were studied, thousands of patients were interviewed in their homes and at dispensaries; and the organization, administration, systems of accounting, and record keeping of the dispensaries, were thoroughly examined.

The study of organization is limited to fourteen institutions. Dr. Corwin says: "Because of the social significance of these diseases, and the important part the clinics play in the campaign against venereal disease, more emphasis has been laid upon clinic procedure than in the other branches of the out-patient departments, except the tuberculosis clinics."

Under the heading, "Treatment of Syphilis and Gonorrhea," the study is based on: (1) department in which treated, (2) clinic hours, (3) space and overcrowding, (4) laboratory tests, (5) records, (6) follow-up, (7) instructions to patients, (8) methods of treatment (9) charges for treatment, (10) discharge of patients.

The summary of clinics for the treatment of syphilis shows, as Dr. Corwin writes, that they are handicapped in three general directions: "first, by lack of space, clerical assistance, and funds; second, by a deficient administrative organization; and third, by the lack of the spirit of scientific research."

PROGRESS IN SEX EDUCATION

The Cincinnati Social Hygiene Society purposes to extend and strengthen its educational program. To help attain this result it has secured the services of Mr. E. F. Van Buskirk, M.A., as its executive secretary and educational director. During the past two years Mr. Van Buskirk, representing the United States Public Health Service and the United States Bureau of Education, has organized twenty-seven state or regional conferences for educators. Mr. Van Buskirk has now been given a lectureship at the University of Cincinnati upon the teaching of hygiene. His course will be an extension course in sex education, and will be based on certain assumptions regarding the attitude of leading educators toward sex education in the high school, which Mr. Van Buskirk's experience has led him to make. These are: that there is a general recognition of the need, but a general opposition to any specialized course, or to any over-emphasis of the subject; and an almost unanimous agreement that, provided there are properly prepared teachers available, sex education should be given a place in certain standard courses of study.

The Cincinnati Social Hygiene Society, while intensely interested in such educational work as that indicated above, expects also to continue its work along other lines of social hygiene. To this end it pledges whatever aid it can give in advancing the four-fold "American Plan" of social hygiene: Medical Measures; Law Enforcement; Recreation; and Education.

THE ROLE OF THE LABORATORY IN THE CONTROL OF VENEREAL DISEASE*

In the control, both prevention and cure, of any communicable disease, the laboratory has certain definite functions, as well as equally definite limitations, although the limitations are not so readily acknowledged by the clinician as by the laboratory worker.

Theoretically, at least, the laboratory should be able: (a) to identify or discover the causative agent for each disease; (b) to determine which tissues are apt to be infected with the organism; (c) to determine in what discharges the organism leaves the body of the infected individual; (d) to determine the duration of life of the organism as a parasite; (e) to determine who are immune; (f) to produce biological products for inducing immunity or cure; (g) to produce chemical products for killing the organism in the infected host.

In Canada, venereal diseases are the only communicable diseases against which the Federal Government has made an active campaign in money appropriations.

In all acts relating to them there is a clause prescribing a fine or jail penalty for any one who "commits any act which leads or is likely to lead to the infection of another person." Penalties are prescribed for failure to undergo treatment. This legal aspect entails the greatest necessity for legal exactitude, in addition to scientific accuracy of all data upon which these penalties are sought to be exacted.

During the last few years great faith has been placed upon the Wassermann test as a guide for treatment of syphilis. From a legal standpoint this test has several defects. One is that there is no uniform standard, and therefore work in one laboratory does not coordinate with work in others. The enunciation of such a standard might well be undertaken by the health department. Another

*A brief extract of an article by R. H. Mullin, B.A., M.B., which appeared in the Public Health Journal, official organ of the Canadian Public Health Association, for September, 1920.

defect is that the legal soundness of the test must be fully established.

The Wassermann test is not absolutely accurate in either direction. Positive results have been known to have been obtained in cases where syphilis was not present. On the other hand, some cases of uncured syphilis will give a negative result, especially after the use of alcohol. Again, certain variations in results have been obtained under altered conditions. It is realized that in certain cases the intensity of the test may change from day to day through a considerable range, for no apparent reason. Then, too, there is a variation in results, depending upon the body fluid used for the test.

In the treatment of gonorrhea there are fewer difficulties for the laboratory worker. Cultivation of the organism is much more easily attained. Unfortunately the complement fixation test in this disease is not on as firm a foundation clinically as in syphilis, in spite of the fact that specific antigens are available.

In both diseases the laboratory has a very important and much-needed function of investigation. Biological preparations for treatment are still for the future. Although brilliant results have been obtained with the arsenical preparations, it cannot be assumed that the goal in this work has been reached. Most of all, for the purposes of control, an accurate and sure means of determining the end of the infectious period is urgently demanded.

More progress will be made if the limitations are clearly recognized by those in whose hands the guidance of these efforts is placed. It must be recognized that in spite of the results that have been obtained in the biology, serology, and therapy of these diseases, laboratory methods alone will not give an infallible answer to the all-important question of "when an individual who has been infected is safe to return to the full and unrestricted exercise of his citizenship." The answer, such as it is, should be founded upon clinical observations, reinforced by the intelligent interpretation of laboratory examinations. This entails the closest and most cordial cooperation between these two branches of the service.

SOCIAL WORK ON VENEREAL DISEASE

The following article appeared in the November, 1920, issue of *Health News*, the monthly bulletin of the New York State Department of Health.

The State Department of Health has asked that all hospitals make the complement fixation test of blood a part of their routine examination of patients. A survey of hospitals, both state and private, has been made, and where this practice has not already been instituted, the authorities have been asked to do so.

In order that some institutions, as, for instance, the orphanages, tuberculosis and state hospitals, might better carry out this work in the future, the department offered to assist them in taking the specimens from their present resident population. The response received was gratifying. Thirty-four institutions accepted and received the assistance prior to September 1, and eighteen others asked for it.

Less than 2 per cent of the persons tested were found to have a definitely positive reaction with both antigens, while more than 40 per cent showed suggestive reactions with one or the other antigen. Those persons giving a positive or suggestive reaction are being given physical examinations, and social workers are studying their family health histories for the purpose of confirming or excluding the presence of syphilis.

In conjunction with the Manhattan State Hospital, at Wards Island, the division of venereal diseases has employed two nurses to investigate the family histories of those patients coming to the hospital with neuro-syphilis, paresis, or locomotor ataxia. A preliminary report of their work showed that, in seventy-five families investigated, fifty members other than the patients were found with positive Wassermanns, making a total of 125 positives. The work will very likely be undertaken at other state hospitals.

CONTROLLING VENEREAL DISEASE

An important phase of the campaign for the control of venereal disease is the educational phase. If the public schools would take up the work of giving sane instruction in this question, a large part of the difficulty could be overcome, for it is through public opinion alone that the control of these diseases can be brought about. Dr. J. P. Bowdoin, of Atlanta, Ga., said in a recent address, "Members introduce, legislatures pass, governors approve, but the people either veto or enact a law. The state statutes, whose purpose is the eradication of venereal diseases, are now squarely before the people of this nation for enactment or veto. The only question is, do the people want to rid themselves and their posterity of this curse, or do they prefer to go back into the loathsome conditions of eastern empires, where prostitution is a legitimate vocation and venereal disease infection near 100 per cent.

"As physicians we answer this question without a dissenting voice, and as physicians we must not only educate, but as citizens we must mold public opinion and form a solid front for the enforcement of the law, governing the control of venereal diseases.

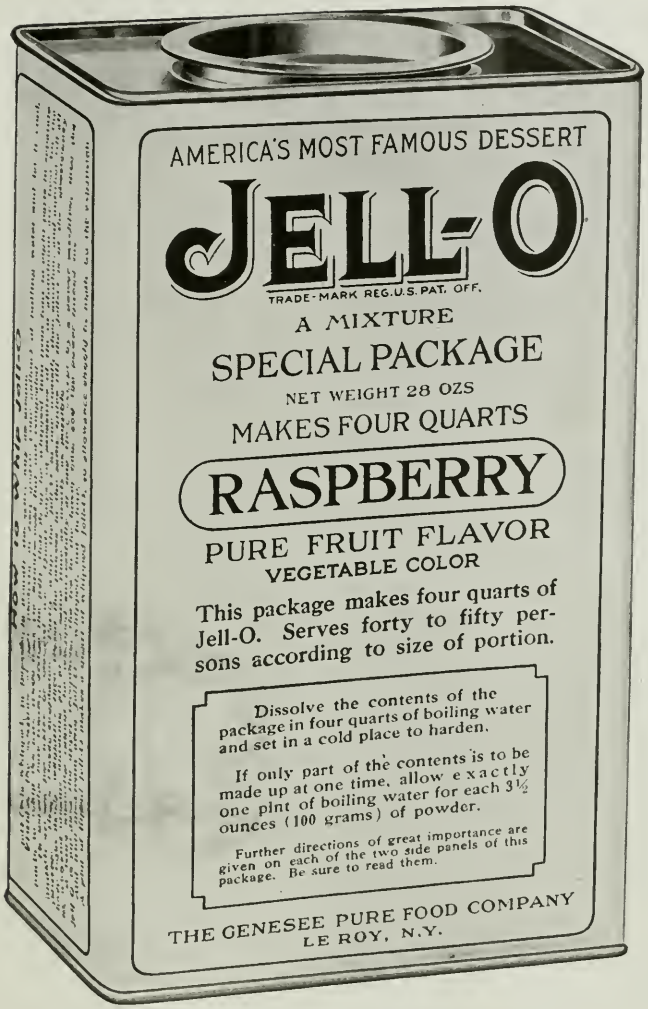
"This is the education that will win the fight; that is the enforcement of the law that will limit the spread of this terrible group of diseases that have cast their dark shadows over all the land, and are reaping a harvest in death, economic loss, mental anguish, blighted hopes, broken hearts, and saddened homes, that is scarcely equalled by all other diseases combined."

HOSPITAL TO FUNCTION AS CLEARING HOUSE FOR SOLDIERS AND SAILORS

The United States Public Health Service has opened its marine hospital in Chicago as a general clearing house for soldiers and sailors residing in the states of Illinois, Wisconsin, and Michigan, who are suffering from nervous and mental diseases. Dr. L. M. Wilbor, surgeon of the Public Health Service, is in charge.

Any member of the military or naval forces of the United States of these states who needs such attention may come or be sent to the hospital for observation and diagnosis, and will receive, in addition to the services of the group of able Public Health Service Surgeons who accompany Dr. Wilbor, the benefit of all the facilities for diagnosis afforded by the vast instrumental resources and expert neuropsychic talent of the great city. Later, the patient may be returned to his home with or without instructions to report from time to time to the hospital for further observation; or he may be transferred to such other hospital as may seem best suited to his condition. Before returning a patient to his home, his conditions and their probable effect upon him will be carefully considered.

Dr. Wilbor has a distinguished record, particularly in New York, where he served in both private and state hospitals, and in the well-known New York Neurological Institute. The hospital, which will start with 130 beds, has an allowance of $85,000 for remodeling and other purposes.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JELL-O
TRADE-MARK REG. U.S. PAT. OFF.
A MIXTURE
SPECIAL PACKAGE
NET WEIGHT 28 OZS
MAKES FOUR QUARTS
RASPBERRY
PURE FRUIT FLAVOR
VEGETABLE COLOR
This package makes four quarts of Jell-O. Serves forty to fifty persons according to size of portion.
Dissolve the contents of the package in four quarts of boiling water and set in a cold place to harden.
If only part of the contents is to be made up at one time, allow exactly one pint of boiling water for each 3½ ounces (100 grams) of powder.
Further directions of great importance are given on each of the two side panels of this package. Be sure to read them.
THE GENESEE PURE FOOD COMPANY
LE ROY, N.Y.

The Special Size for Hospitals

One gallon instead of one pint of Jell-O is made up from the new Special Package of Jell-O, saving nine-tenths of the time required for opening and emptying the common small size.

This change eliminates the last remaining bit of real work connected with the preparation of Jell-O dishes.

Among the dishes which the nurse likes to prepare are the refreshing and attractive salads of which the foundation is Jell-O. These are made by adding to the Jell-O chopped celery and bits of fruit and nutmeats. They are moulded in teacups or little moulds and each is turned out on a lettuce leaf.

As Jell-O contains sugar and the other ingredients that would have to be added if plain gelatine were used, there is a great saving of time, labor and cost, and the result is always satisfactory. The price of this special package has been materially reduced within the past month.

Jell-O is made in six pure fruit flavors: Strawberry, Raspberry, Lemon, Orange, Cherry, Chocolate.

The new Special Package for hospital use contains enough Jell-O to make four quarts of jelly as against one pint of the regular small size.

THE GENESEE PURE FOOD COMPANY
Le Roy, N. Y., and Bridgeburg, Ont.

Consult the 1920 Year Book for Catalog information.

Hints to Hospital Superintendents

CUTTING DOWN WASTE MATERIAL

A booklet used during the war entitled, "Army Food—Kitchen Products and By-Products," contained so many pointers in kitchen economy for hospital executives that we are reprinting herewith certain extracts.

"Fats for cooking. Suet should be used for the best cooking purposes. Its most economical use is raw in suet pudding; but it can also be turned into drippings.

Excess fat from the carcass (butcher's fat) should be cut into small pieces or put through a meat grinder, rendered and clarified. It may be issued instead of butter.

Surplus fat removed before cooking (trimmings) should be rendered and clarified, for use in making cakes and biscuits.

Cracklings, the fibulous residue of rendered raw fat, should be boiled up with water, skimmed, and used in first-class cooking.

Skimmings, the grease skimmed off the surface of stews, stockpots, etc., should be clarified. If discolored it should be broken up, put into fresh water and reclarified. When clear it can be used for first-class cooking; if discolored and flavored, it is useful as second-class best brown drippings for frying.

Bacon fat left after frying bacon should be clarified and used for second-class brown drippings for frying. Fat lost in process of cooking when clarified makes excellent gravy.

One bullock yields an average of seventy to eighty pounds of bones, and of waste fat 100 to 120 pounds. One sheep yields eleven to fifteen pounds of bones and twenty to twenty-eight pounds of fat."

GETTING 100 PER CENT SERVICE FROM YOUR LIGHTING SYSTEM

During the winter months, the lighting expense of the institution is naturally heavy, and hospital superintendents should take every measure to guard against undue light consumption, and to see that the greatest possible lighting efficiency is secured.

It is common knowledge that incandescent lamps deteriorate, and as a result lighting efficiency is greatly reduced, and the current consumption is increased. This is particularly true of carbon lights, which use much greater current when old than when new. This deterioration can, as a rule, be easily detected by the eye without photometric apparatus, as the light has a yellowish cast, the surface of the globe becomes blackened or carries a dark deposit, while in some instances a deposit also occurs on the outside of the lamp bulb.

The manufacturers of the Mazda lamp claim an average life of one thousand hours' burning, and state that at the end of this period the lamp should be discarded, if the greatest possible economy and efficiency is to be secured.

Another way in which lighting efficiency can be furthered is to inspect your lighting system carefully and see if lamps of proper size are being used. It will frequently be found that a lower candle power will give ample light for certain locations. In other words, the candle power of the electric light should be governed entirely by the conditions surrounding its use.

Another thing, be sure that your lighting fixtures are clean. This is no reflection on your housekeeper, because even in fixtures that appear clean there is frequently an accumulation of dust that greatly impairs the lighting efficiency. All lamps and reflectors should be regularly washed and cleaned. In the ordinary direct lighting reflector there is little opportunity for dirt to gather, and the lamp bulb will be the primary cause of light loss. In the case of the inverted unit, however, a thin layer of dust soon settles on the entire reflecting surface, as well as on the lamp, and this will reduce the lighting efficiency appreciably in a very short time.

Another cause for faulty illumination is the condition of walls and ceilings. This should be most carefully watched in rooms requiring brilliant illumination such as operating rooms, laboratories, etc. The paint and enamel gradually lose reflecting power, and many deficiencies in the lighting system may be due in part to the condition of the walls and ceiling.

PROTECTING THE FLOUR SUPPLY

Hospitals that carry any considerable quantity of flour in storage should exercise great care to see that it is properly protected against dampness. A good plan is to pile the surplus stock of flour on inch boards laid on two by fours over concrete, but never directly on the concrete. Another thing to guard against is excess heat or humidity, which is likely to cause caking or other deterioration. One of the best preventives of this is a free circulation of air which strongly counteracts extreme humidity or heat. As flour rapidly absorbs odors, care should be taken not to use tarred paper or other strongly smelling materials near the place where flour is stored. Care should also be exercised in the use of disinfectants on account of the effect they may have on the flour, either through their odor or through damaging the flour in other ways, as in the case of sulphur dioxide, which destroys the gluten in the flour. Proper care should also be taken to protect flour against rats, mice, and insects.

He who exhibits no faults is a fool or a hypocrite whom we should mistrust. There are faults so intimately connected with fine qualities that they indicate them, and we do well not to correct them.—Joubert.

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LABORATORY PRODUCTS

HEADQUARTERS

Our facilities make us headquarters for the Endocrine Gland and Organotherapeutic products.

Pituitary Liquid ½ c. c. and 1 c. c. ampoules, 6 in box.

Pituitary powder and tablets. Anterior Pituitary Powder and Tabs. Posterior Pituitary Powder and Tabs.

Corpus Luteum (true) powder and 2 and 5 grain Tabs, and 2 and 5 grain capsules.

Pepsin, U. S. P. scale, granular and powder.

Pancreatin, U. S. P. Powder.

YB
Page 277

ELIXIR ENZYMES is a palatable preparation of the proteolytic and curdling ferments that act in acid medium. It is recommended as an aid to digestion and as a gastric tonic generally.

Elixir of Enzymes is of special service in correcting faulty proteid metabolism which is one of the principal causes of autointoxication.

Elixir of Enzymes is an excellent adjuvant and vehicle for exhibiting iodids, bromids, salicylates and other drugs that disturb the digestive functions. One dram of Elixir Enzymes will carry 46 grains of potassium iodid or 45 grains of sodium salicylate or 17 grains of potassium bromid.

Elixir of Enzymes contains the curdling ferment and may be used for making junket or curds and whey. Add one teaspoonful of the Elixir to half pint of lukewarm milk, stir thoroughly and let stand till cool.

For minimizing the organic disturbances and eliminating the corrosive effect of potassium iodid on the mucous membrane of the stomach as well as disguising the taste, the following combination is recommended:

Potassium Iodid, 2 ounces.

Distilled water, enough to make two fluid ounces.

To exhibit, for instance, 20 grains of potassium iodid three times daily, use one teaspoonful of Elixir of Enzymes, one teaspoonful of the above solution to half pint of lukewarm milk; stir thoroughly and let stand until cool. Take one-third of this quantity as a dose. This junket should be made up fresh every morning.

ARMOUR AND COMPANY
CHICAGO

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MEETINGS, CONVENTIONS AND CONFERENCES

AMERICAN HOSPITAL ASSOCIATION'S ROSTER OF OFFICERS AND COMMITTEES 1920-21

OFFICERS

Dr. Louis L. Baldwin, President
Dr. George O'Hanlon, President-elect
Dr. T. MacEachern, 1st Vice President
Dr. S. G. Davidson, 2nd Vice President
Dr. A. R. Warner, Executive Secretary
Miss Alice M. Gaggs, 3rd Vice President
Asa S. Bacon, Treasurer

BOARD OF TRUSTEES

Dr. Louis B. Baldwin, Chairman
Dr. George O'Hanlon
Asa S. Bacon
Dr. Louis H. Burlingham
Rev. Maurice F. Griffin
Richard P. Borden
Dr. Robert J. Wilson
Miss Mary M. Riddle
H. E. Webster

1921 CONVENTION

September 12 to 16, inclusive, at the West Baden Springs Hotel, West Baden, Indiana.

1921 COMMITTEE APPOINTMENTS

Standing Committees

CONSTITUTION AND RULES

Mr. R. P. Borden, chairman, Union Hospital, Fall River, Mass.

Dr. R. B. Seem, director, Albert Merritt Billings Memorial Hospital, Chicago, Ill.

Dr. A. K. Haywood, superintendent, Montreal General Hospital, Montreal, Quebec.

NOMINATIONS

Dr. W. L. Babcock, chairman, superintendent, Grace Hospital, Detroit, Mich.

Mr. A. B. Tipping, superintendent, Touro Infirmary, New Orleans, La.

Miss Mary L. Keith, superintendent, Rochester General Hospital, Rochester, N. Y.

LEGISLATIVE

Mr. F. E. Chapman, chairman, superintendent, Mount Sinai Hospital, Cleveland, O.

Dr. R. G. Broderick, director of hospitals, Alameda County Hospital, San Leandro, Calif.

Mr. Pliny O. Clark, superintendent, Presbyterian Hospital, Denver, Colo.

MEMBERSHIP

Dr. C. W. Munger, chairman, superintendent, Columbia Hospital, Milwaukee, Wis.

Mr. Howard E. Bishop, superintendent, Robert Packer Hospital, Sayre, Pa.

Miss Myral M. Sutherland, superintendent, Mary McClellan Hospital, Cambridge, New York.

TIME AND PLACE

Dr. L. H. Burlingham, chairman, superintendent, Barnes Hospital, St. Louis, Mo.

Mr. H. E. Webster, superintendent, Royal Victoria Hospital, Montreal, Quebec.

Miss Mary M. Riddle, superintendent, Newton Hospital, Newton Lower Falls, Mass.

OUT-PATIENT

Mr. John E. Ransom, chairman, superintendent, Michael Reese Dispensary, Chicago, Ill. Term expires convention, 1922.

Dr. Robert J. Wilson, director, Health Department Hospitals, New York City. Term expires convention, 1921.

Dr. Alec H. Thompson, director, department of medical activities, American Social Hygiene Association, 105 W. 40th St., New York City.

STUDY OF STATE SUBSIDY FOR HOSPITALS

Mr. Howell Wright, chairman, executive secretary, Cleveland Hospital Council, Cleveland, Ohio.

Dr. Winford H. Smith, superintendent, Johns Hopkins Hospital, Baltimore, Md.

Mr. Daniel D. Test, superintendent, Pennsylvania Hospital, Philadelphia, Pa.

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HYCLORITE
REG. U.S. PAT. OFF.
CONCENTRATED
SODIUM
HYPOCHLORITE

Hyclorite Has Solvent Action

DRS. Austin and Taylor of Rockefeller Institute, New York, writing in the Journal of Experimental Medicine on "The Solvent Action of Antiseptics on Necrotic Tissue," state that "the solvent action of Dakin's Solution is due primarily to its hypochlorite content" and that "Dichloramine T and Chloramine T do not exhibit solvent action."

The same authorities have shown conclusively that a Dakin Solution made by dissolving chloramine tablets or powder is not alkaline and has no solvent action on necrosed tissue.

Hyclorite being of standardized hypochlorite strength and special alkalinity, ensures rapid solvent action. A Dakin's Solution can be made in one minute by merely adding the required amount of water to Hyclorite.

No waiting, filtering, titrating, or adding other chemicals, and the resulting solution is decidedly less irritating. Hyclorite has seven or eight times the strength of Dakin's Solution made in the usual way.

Hyclorite's concentration and preparation by special electro-chemic process assure its remarkable keeping qualities.

Hyclorite is Isotonic

Accepted by Council of Pharmacy & Chemistry of the A. M. A. (N. N. R.)

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TRUSTEES OF AMERICAN HOSPITAL ASSOCIATION TRANSACT IMPORTANT BUSINESS

SEVEN of the nine trustees of the American Hospital Association were present at the quarterly meeting, held on January 12, at Chicago. The place for the 1921 conference was set for West Baden Springs Hotel, West Baden, Ind., on next September 12 to 16, inclusive. The trustees expressed the desire to continue the hotel type of convention as long as possible, although the growth of the association will soon make the auditorium type necessary.

A representative of the Surgeon General of the United States Public Health Service spoke on the question of the judicious opening of general hospitals to certain types of cases of pulmonary tuberculosis, and a resolution was passed recommending that whenever practicable and feasible, general hospitals open separate wards for these cases.

Michigan Association Becomes Section

The Michigan Hospital Association was accepted as a geographical section of the American Hospital Association, but on account of the fact that the constitution provides for geographical and departmental sections only, the application of the Protestant Hospital Association for recognition as a section was necessarily tabled for lack of authority to act. General interest in and approval of the work of the Protestant Hospital Association were expressed, however, and the desire to establish with it the same friendly relations that have been established with the Catholic Hospital Association. The basis of this understanding is the recognition of the fact that the Catholic Hospital Association is performing a distinct service in the development of the hospital field such as is in general the work of the American Hospital Association, but doing this particular work much more effectively than the American Hospital Association could do it.

Some definite plans for the publication of material developed by the service bureaus were approved, as was also the report of the committee which made the study of hospital social service.

Association Will Study Floors

A gift toward the expense of a study of hospital flooring was accepted with an expression of thanks, and Mr. F. E. Chapman, superintendent of Mount Sinai Hospital, Cleveland, O., was appointed chairman of the committee to carry on this work; other members will be added to the committee as the need in indicated. The meeting passed a resolution urging hospitals to secure more autopsies, and authorized two new sections to be developed as the interest in the membership in the association shall indicate, a section on hospital dietetics, and another on state or psychopathic hospitals. A resolution was passed urging the hospital associations of the various provinces in Canada to apply for recognition as geographical sections of the American Hospital Association, under the authorized terms and arrangements. The subjects for several future bulletins were approved, and the subject of the proposed increase in United States duty on several items of hospital supplies was discussed at length. The executive secretary was authorized to appear at the hearings on these bills held by the committee in Washington, and to take a definite position in the matter. A number of suggestions as to the development of the organization of the association and its service to hospitals were discussed, and definite policies were determined.

MICHIGAN HOSPITAL ASSOCIATION MEETS AT GRAND RAPIDS

The Michigan Hospital Association met on December 7, and 8, at Grand Rapids. Among the ninety-seven workers who were there, hospitals in twenty-two cities were represented.

The first session was taken up by the reports of committees. The committee on legislation reported on proposed amendments to the nurses' bill, and the introduction of a bill trying to protect hospitals and sanatoriums in somewhat the same manner as hotels and boarding-houses are protected. Both of these matters the committee expects to call to the attention of the state legislature in January. The suggested amendments to the nurses' bill would establish a "trained attendant" who may be licensed by the state board on the completion of a nine months' course, six of which shall have been practical work. It was suggested that the educational requirement for registered nurses be raised to two years of high school work. Compulsory registration of nurses, which has not up to this time been required in Michigan, and annual registration, were also proposed.

There was a report, by the committee on recruiting pupil nurses, of its work during the summer. As a result of the work of the committee, hospitals are in better shape than last year. A questionnaire which was presented to all the pupil nurses in Michigan, revealed the fact that practically 50 per cent of the pupils had taken up nursing because their attention had been called to it by graduate nurses, physicians, or friends. The other 50 per cent had taken it up through a natural desire for the work. It was found that two-thirds of the nurses had chosen their training school because it was near home, or on its reputation, and one-third were directed to the school by nurses or doctors. Less than one-third had visited the school before entering it.

At the second session, former United States Senator William Alden Smith called attention, in a short address, to the great work being done by hospitals, and suggested that people in connection with the work were usually too modest in presenting their cause to the public. Dr. Andrew R. Warner, executive secretary of the American Hospital Association, spoke on the desirability of the affiliation of state associations with the American Hospital Association.

John A. Lapp, editor of *Modern Medicine*, Chicago, talked on newer phases of health organizations. He emphasized the fact that there is not as much duplication in health activities as there is thought to be, but that the problem at the present time is to gather up the results of successful experiments in the different organizations, so that all organizations may profit by the experiences of each.

At the last session a paper was presented by Miss Harriet Leck, from the state department of health, Lansing, on the relation of Michigan hospitals to the public health nursing of the state.

Dr. Warren L. Babcock, superintendent of Grace Hospital, Detroit, conducted a round table, at which such

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Crescent Electric Dish Washer

The machine you need

"Crescent Electric Dish Washers should appeal to every institution dealing with infectious disease," writes Dr. Glenford L. Bellis, Superintendent of Muirdale Sanitorium. "They have served our purpose satisfactorily and admirably. We have found them simple in operation and effective in results. Furthermore, *it combines the features of washing, rinsing and sterilizing* without additional labor on the part of the operator."

A Crescent for small diet kitchens

Crescent Model "M"—only two feet square—enables hospital authorities to equip small diet kitchens with a dish washer which cleans dishes as thoroughly as the larger Crescents for big kitchens.

With doors on three sides, Crescent Model "M" can be installed in a corner or along the wall. It washes 30 dishes in 30 seconds—enables ward kitchens to handle dish washing quickly and safely.

Extremely simple to operate

A single lever controls all operations. By simply moving this lever, dishes are first washed —then rinsed and sterilized. It is just as easy as it sounds.

The upper and lower wash streams insure the quick and thorough washing of every dish surface. The cutting, stripping action of the Crescent Double Wash finds the dirt.

Eliminates breakage

Dishes are placed in a wooden breakproof rack which is slid into the washer. There they remain motionless while whirling torrents of water under pressure from above and below the dishes, wash them. Every dish surface is cleansed instantly. Then follows a clean, scalding, sterilizing rinse. The dishes dry without handling.

Some Crescent installations

The hundreds of hospitals where Crescents do the dish washing include Grace Hospital, New Haven, Conn., Florida Sanatorium, Orlando, Fla., Hebrew Hospital, Baltimore, Md., St. Joseph's Hospital, Aberdeen, Wash., Children's Memorial Hospital, Chicago, Ill., Mercy Hospital, Davenport, Iowa, Mayo Clinic, Rochester, Minn., State Tuberculosis Colony, New Lisbon, N. J., Manhattan Eye and Ear Hospital, New York City.

Write today for full detailed description of Crescent Electric Dish Washers. Ask your kitchen outfitter about the Crescent.

CRESCENT WASHING MACHINE COMPANY
80 Beechwood Avenue New Rochelle, N. Y.

Crescent Electric Dish Washer

The Exclusive DOUBLE Revolving Wash

Consult the 1920 Year Book for Catalog information.

questions as the following were discussed: the policy of hospitals with regard to medical and surgical care of pupil nurses; the advisibility of establishing pay clinics in connection with general hospitals; the relation of the amount of fire insurance policy to the amount of appraised value of the property; the type of worker to be used in hospital follow-up work; the charge per diem for compensation cases; the ethical forms of publicity for training schools to use; and, the proper visiting hour for hospitals.

The next meeting of the Association will be held at Ann Arbor on June 7, and 8.

WISCONSIN HOSPITAL ASSOCIATION JOINS NATIONAL BODY

The American Hospital Association, at a directors' meeting held at the time of its annual convention in Montreal, accepted the Wisconsin Hospital Association as one of its geographical sections. Since the annual meeting of the Wisconsin Hospital Association, September 16 and 17, there have been two meetings of its board of trustees at which plans have been outlined for increasing the membership of the Association. This work is to be done by the various officers and also by the trustees. The various districts of the state are represented in the board of trustees and each trustee will be responsible for obtaining a new member in his district. The next convention of the association will probably be held in the spring, in order not to conflict in any way with the meeting of the American Hospital Association.

AMERICAN SANATORIUM ASSOCIATION MEETS

The American Sanatorium Association held its sixteenth mid-winter meeting at the Monroe County Sanatorium, Rochester, N. Y., on December 11, 1920. Approximately seventy-five members from all parts of the country attended. The scientific discussion was on the present day status of the early diagnosis of tuberculosis, various phases being presented by distinguished speakers. This was followed by general discussion. The matters considered were nation wide follow-up by mail of ex-sanatorium patients, with the cooperation of the national association; an extending into the homes of post-sanatorium treatment; and the modification of the present classification of pulmonary tuberculosis by including x-ray findings.

SOUTHERN HOSPITAL ASSOCIATION ORGANIZED

On November 15, 1920, there was a meeting held to organize the Southern Hospital Association, which will be an auxiliary of the Southern Medical Association. The session was called at Louisville, Ky., with Dr. W. P. Harbin of Rome, Ga., acting as president. The question of organizing the association as an auxiliary, to function as a section of the medical association, was discussed, and it was the unanimous opinion of those present that there is a distinct need for a hospital association. The acting president was instructed to name a committee on constitution, by-laws, and permanent organization, to report at the next meeting one year hence. The temporary organization now functioning will continue until that time. The association then proceeded with a symposium on group medicine; papers were read by Dr. Stewart R. Roberts, Atlanta, Ga.; Dr. Benj. B. Steedly, Spartanburg, S. C., and Dr. M. B. Stokes, Houston, Texas. The question was then discussed by several other doctors. After a paper by Dr. Tom A. Williams, Washington, D. C., on the management of certain types of nervous cases in general hospitals, the election of officers was held. Dr. W. P. Harbin, Rome, Ga., was elected president, Dr. Beverly R. Tucker, Richmond, Va., vice-president, and Dr. Paul V. Anderson Richmond, Va. secretary.

AMERICAN CONFERENCE ON HOSPITAL SERVICE TO MEET EARLY IN MARCH

The Council on Medical Education and Hospitals, the Council on Health and Public Instruction of the American Medical Association, the Association of State Licensing Boards, the Association of American Medical Colleges, and the American Conference on Hospital Service will meet in conference in Chicago from March 7 to 10. Wednesday afternoon, March 9, will probably be given over to the American Conference on Hospital Service. The program will be published in the March issue.

DR. JOHN F. BRESNAHAN ASSUMES NEW POSITION

Dr. John F. Bresnahan, who has been associated with Dr. John G. Bowman in the hospital standardization work of the American College of Surgeons during the past year and a half, has been appointed superintendent of the Bridgeport Hospital, Bridgeport, Conn. Dr. Bresnahan was for several years one of the assistant superintendents of the Massachusetts General Hospital. During the later part of 1918 he was morale officer of the hospital at Camp Custer, and later was appointed morale officer of the entire camp. The Bridgeport Hospital is to be congratulated upon securing Dr. Bresnahan, who is a man of varied experience and wide knowledge of the hospital field.

HOSPITAL LIBRARY AND SERVICE BUREAU RECEIVES ATTRACTIVE GIFT

The Royal Victoria Hospital of Montreal recently presented the Hospital Library and Service Bureau with an attractive book, fifteen by twenty-four inches, bound in black leather, which contains the pictures and plans of the various buildings of this prominent hospital as well as interesting interior views and sample record forms.

ENLARGING MOUNT SINAI HOSPITAL

The new private pavilion for Mount Sinai Hospital, planned by Arnold W. Brunner, architect, and Dr. S. S. Goldwater, acting as consultant, is now under roof, and is being made ready for occupancy in the fall. This building covers a whole block front on Fifth Avenue, facing Central Park. Seventy-five private rooms out of a total of 131 have individual balconies with a new type of modified French door, designed to meet winter as well as summer requirements. A new children's pavilion and an auditorium are also approaching completion. With these additions, the Mount Sinai group consists of seventeen buildings, ranging in height from two to eight stories. The capacity of the enlarged hospital is 750 beds, making it the largest private general hospital in the United States.

The Achilleion palace at Corfu, formerly a possession of the ex-Emperor of Germany, has been converted into a hospital by the French and named the Tribondeau Hospital, in memory of a naval medical officer and bacteriologist who died of influenza in the epidemic of September, 1918.

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Far Pleasanter to Use Than Side Towels

THE Onliwon PURE WHITE Towels
REG U.S. PAT. OFF.

ONLIWON PURE WHITE TOWELS are as soft as linen and very absorbent—their lightest touch removes the moisture from your hands. Each ONLIWON Towel is served folded and is therefore doubly absorbent and firm.

Sanitary

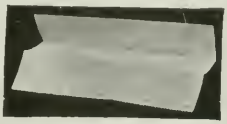
ONLIWON TOWELS are served from a pure white cabinet that **protects** the towels from dust and operates **automatically** without insanitary knobs to touch. The towels are served consecutively just one at a time so as to discourage waste.

Special Introductory Offer

Hospitals east of the Mississippi may obtain one white enameled Towel Cabinet and 1,000 Pure White Towels for $6.25. Write today.

A. P. W. PAPER CO. Department Q **Albany, N. Y.**

The "Pure White"



Towel for Smooth Hands

Consult the 1920 Year Book for Catalog information.

QUERIES AND ANSWERS

DIFFERENTIATION OF DUTIES IN THE TRAINING SCHOOL

To the Editor of THE MODERN HOSPITAL:

When a hospital has (1) a superintendent of the training school, (2) a theoretical instructor, and (3) a practical instructor, how should the work be divided between these three persons and what relationship should this training department have with the practical work of the hospital?

HEAD OF A CONNECTICUT HOSPITAL.

(1.) The superintendent of nurses is responsible for the general organization of the theoretical and practical training of student nurses, and for all details concerning their life and work in the hospital. She is also responsible for the nursing care of the patients, and the general management of the nursing service of the hospital. Head nurses, instructors, and all officers directly concerned with the nursing work of the hospital are under her direction, and she is responsible to the superintendent of the hospital for her department. In smaller institutions she may have charge also of some of the housekeeping departments, and may substitute for the hospital superintendent in his absence.

(2.) The theoretical instructor usually teaches anatomy, physiology, bacteriology, chemistry, and possibly also materia medica, hygiene, and other preparatory subjects. In some schools she follows certain of the doctors' lectures with quizzes. As a rule, twenty hours of actual teaching work, with the outside preparation involved, would be as much as any teacher could do thoroughly. This instructor rarely has any executive duties or any responsibility for the practical administration of the wards. She should, however, be free to come and go in the hospital, and to question the student nurses on anything connected with the subjects she teaches, always assuming that she does not interfere in any direct way with the regular work on the wards. She ought to keep in touch with what is being done in the hospital, in order to make her teaching more practical and effective. The theoretical instructor is usually responsible for making out class schedules and keeping certain class records, and in some cases she also takes over certain details about the arrangement for visiting lectures, etc.

(3.) The instructor of practical nursing teaches the students all their practical nursing procedures. This is usually done in the demonstration room, but she also follows them on the wards at least during the preliminary period, to see that they are carrying out the principles and methods which have been taught in the class room. The duties which are assigned to the probationers on the wards should be worked out between the practical instructor and the head nurse. The students should not be asked to do anything on the wards until they have been carefully taught by the instructor, and until the instructor has first seen them carry out the procedure satisfactorily. If the young pupil nurse is not doing good work, the head nurse should report the matter to the instructor who has this group in charge. It is, of course, essential that the head nurse and the practical instructor should work closely together; otherwise, there will be friction. The practical instructor should be considered as one of the supervisory staff, with special responsibility for the training of student nurses.

It is essential that the superintendent of the training school and her assistants should be on the wards constantly to oversee the work of the student nurses and others of the nursing department. There seems to be no reason why their duties should conflict with those of the administrative staff of the hospital, if both groups of workers have a pretty clear idea of their functions and are prepared to cooperate in working for the best interests of both the hospital and the nursing school.

LAUNDRY CHUTES BEING USED

To the Editor of THE MODERN HOSPITAL:

Are modern hospitals of today using the laundry chute? In our hospital the laundry chute does not go to the laundry, but instead goes to the utility room in the basement, and from there on the laundry cart, to the laundry.

ARCHITECT.

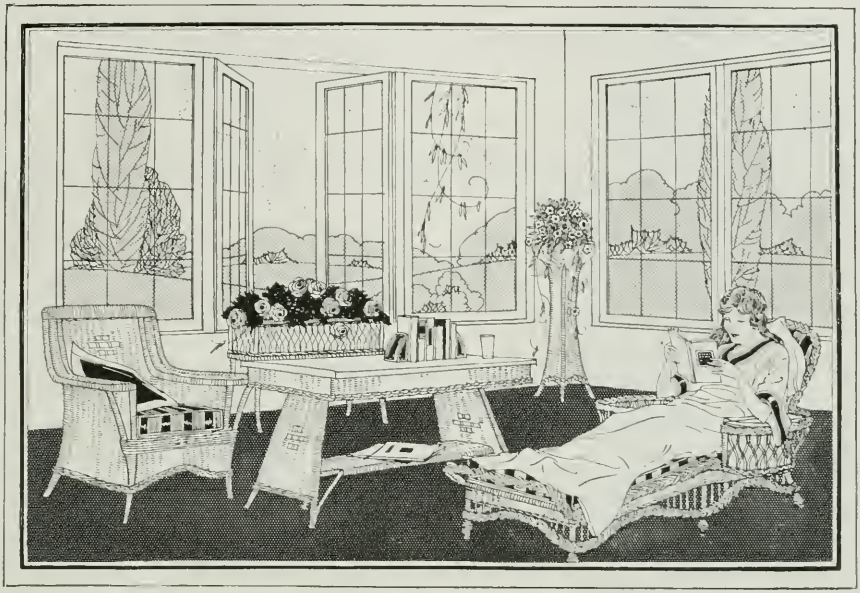
Sanitary laundry chutes are being used constantly in the very best hospitals. In very few cases does the laundry chute empty into the laundry, as this would be possible only where the laundry is located under the hospital building. As most laundries are, and should be, located in separate buildings, the laundry must be conveyed there by means of carts from the base of the chute.

There are two methods of using the chutes, each of which presupposes that the linen is marked by floors or wards. The first method is to throw the soiled linen directly into the chute making no count on the floor, but accepting the count of the laundry man when he empties the base of the chute. The second method, a little more systematic, is to assemble the soiled linens in the utility rooms, placing them in soiled linen hampers especially built for this purpose. At stated intervals the nurse in charge counts the linen, and the bag is then sent down the chute and soiled linen re-checked at the laundry.

There is no more reason why linen should be mixed up by use of the chute, than by any other method of handling soiled linen.

Build on, and make thy castles high and fair
Rising and reaching upwards to the skies;
Listen to the voices in the upper air,
Nor lose thy simple faith in mysteries.

—Longfellow.



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Book Reviews and Current Hospital Literature

THE EYESIGHT OF SCHOOL CHILDREN

Bulletin, 1919, No. 65, issued by the Bureau of Education, Department of the Interior. by J. H. Berkowitz.*

The Department of the Interior has recently issued a bulletin, by Mr. J. H. Berkowitz, on defective eyesight of school children. Though the scope of the survey has been wide, every phase of the problem has been considered with reference to the principle of practicability of result to the teacher, principal, nurse, school official, and health officer.

Originally the survey was made for the Bureau of Welfare of School Children, Department of Social Welfare, and the New York Association for Improving the Conditions of the Poor, and was an investigation of conditions in New York City. Later, at the suggestion of the United States Commissioner of Education, the investigations were extended so as to make the report national in scope.

Blackboards were found to be important factors in the production of eyestrain, for they are very often placed between windows or under windows, either of which is a serious strain on the eyes. Deterioration of blackboard surfaces is also an evil, for if the surface becomes streaked or chipped, the writing will be difficult to read. Whatever material is used for blackboards, the first requisite is that the surface be smooth, and of a dark gray tone bordering on black. Natural slate is considered by far the best material for school use.

A large proportion of eyestrain has been found to be due to the placing of desks and seats so that the writing on the blackboard cannot be seen without straining the eyes. Another condition which should be remedied is the poor position of the seats and desks in relation to each other. Bad posture and eventually bad eyesight will result from the desk being too high or too low, or at the wrong distance from the seat. The right distance is still a disputed question, but Kotelmann (School Hygiene, p. 141) says: "The chief thing is to have a minus distance, when the pupil is reading or writing." A minus distance is to have the desk edge overhang the seat edge.

In the last few years several organizations have used the illustrated chart as a means of education in matters of public health, and especially school hygiene. The National Education Association had a series of charts prepared on the subject of the conservation of vision. It was thought that, by placing these graphic illustrations of the problem and its solution within reach of school workers, a better understanding of school hygiene and the health needs of children might be brought about.

In several of the largest cities in the United States the schools are equipped with special rooms for the medical director and the school nurse. All new school buildings in New York are planned so as to include such a room, and the dimensions and equipment which make them suitable for visual tests, as well as for other health work.

There is great need in the United States for better standardizing of regulations for the construction of schoolhouses. State laws on this question are few and most of them are very deficient. Only twenty states make any regulation concerning the lighting of the buildings. There is a striking difference among the provisions, showing a lack of standardization, and, too often, a lack of authoritative basis for these "legislative attempts."

*Washington Government Printing Office, 1920.

THE DAWN OF MODERN MEDICINE

By Albert H. Buck, formerly Clinical Professor of Diseases of the Ear, Columbia University, New York; Consulting Aural Surgeon, New York Eye and Ear Infirmary. 288 pages.[1]

"The Dawn of Modern Medicine," by Dr. Albert H. Buck, is a continuation of the author's earlier work, "The Growth of Medicine." This later book is "An account of the revival of the science and art of medicine which took place in Western Europe during the latter part of the eighteenth century and the first part of the nineteenth." This volume is the third work which has been published by the Yale University Press, on the Williams Memorial Publication Fund. This foundation was established June 15, 1916, by a gift made to Yale University by Dr. George C. F. Williams of Hartford, in memory of his father and grandfather who, like himself, were graduated from the Yale Medical School.

Dr. Buck says that in his book he has tried to follow the suggestion once made by the celebrated French naturalist, Cuvier, who said, "It is not through a perusal of the insufficient extracts that are commonly made from the published works of distinguished men, . . . that we derive the greatest pleasure, . . . but this desirable result is more likely to be obtained when we are made intimately acquainted with their individual traits of character, . . . given the opportunity of contemplating close at hand their distinct qualities, by one who is skilled in such portraiture." This, then, is Dr. Buck's aim.

He has subdivided his book according to the geographical districts treated, Northern and Central Germany, Austria, Italy, France, Switzerland, and England, and within these subdivisions each chapter deals either with distinguished men, or some epoch-making discovery in the science of medicine.

[1]Yale University Press, New Haven, 1920.

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A SHORT HISTORY OF NURSING

By Lavinia L. Dock, R.N., Secretary, International Council of Nurses, in Collaboration with Isabel Maitland Stewart, A.M., R.N., Assistant Professor Department of Nursing and Health, Teachers College, Columbia University, New York City. 392 pages.[2]

In "A Short History of Nursing," Miss Dock has tried to make a more workable history which can be more conveniently used for training schools than the larger work in four volumes by Miss Dock and Miss Nutting. Miss Dock has taken most of her material from this larger "History of Nursing," but she has added some of the more recent developments in the field which are not in the first work.

It is important that the student nurse study the history of her profession, if she is to have any perspective on her work, and if she is to give her best efforts to it. The author traces the development of nursing from that in the ancient world, through the dark period, which was lightened by the coming of Florence Nightingale, the founder of modern nursing, down to modern times, and the recent developments in the field both in America and other countries. Certain influences such as Christianity, and aristocratic, military, democratic, and secular tendencies are described. In the final chapter Miss Dock has tried to "introduce the young nurse to some of the fundamental principles of nursing ethics and to show how these principles have grown up out of the history of nursing."

PUBLIC HEALTH LABORATORY WORK

By Henry R. Kenwood, C.M.G., M.B., D.P.H., etc., Chadwick Professor of Hygiene and Public Health University of London; Medical Officer of Health and Public Analyst for the Metropolitan Borough of Stoke Newington. 420 pages.[3]

"Public Health Laboratory Work," the new book by Dr. Henry R. Kenwood, deals almost exclusively with the chemical branch of public health laboratory work. The increase in importance of bacteriology in this work makes it impossible to deal with both this and the chemical side in one volume, so Dr. Kenwood has made only occasional references to bacteriological matters, and a companion volume on microbiology is being prepared by Dr. Sheridan Delépine.

This book is not an attempt to describe a large number of methods to the same end, but rather to select the ones which experience has proved to be the most suitable to the needs of the public health worker.

The book is divided into six sections, dealing with the chemical, microscopical, and physical examination of water for public health purposes; sewage and sewage effluents; soil examination; air analysis; food examination; and the examination of disinfectants. The book is copiously illustrated.

A DIABETIC MANUAL

For the Mutual Use of Doctor and Patient. By Elliott P. Joslin, M.D., Assistant Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Collaborator to the Nutrition Laboratory of the Carnegie Institution of Washington, in Boston; Formerly Lieutenant-Colonel, M. C., U. S. Army.[4]

As stated on the dedicatory page, the object of this book is "To Help Make the Home Safe for the Diabetic" and without doubt the author has done much toward the fulfillment of this object.

In the first chapter, Diabetes is discussed in such a way as to give the intelligent patient and understanding of the disease and so far as is yet known, the causes and general principles to be observed in treatment. The responsibility of the patient for his condition is made clear but not in terms that lead to discouragement.

Dr. Joslin states that mental relaxation and physical exercise are important as well as dietetic treatment and one chapter is devoted to hygiene for the diabetic.

Most helpful information is given in composition of foods, body requirements, body weight and weight peculiarities, as well as directions for computation of diet, making urine tests, and other details of treatment. There are, also, tables of food materials, menus, and recipes with comments and suggestions which are good. Possible complications and other things to be considered in connection with the treatment of the disease are also given attention.

To the patient this book will be of value because of the information it gives in convenient form; it will aid the physician and the dietitian very much in their efforts to educate the patient and will also serve as an excellent guide; to the teacher of dietetics it will furnish reliable practical material for either class work or experimentation.

[2]G. P. Putnam's Sons, New York and London. The Knickerbocker Press, 1920.
[3]Paul B. Hoeber, New York City.
[4]Lea and Febiger, Philadelphia and New York, 1919.

BOOKS RECEIVED

HYGIENE OF CUMMUNICABLE DISEASES. By Francis M. Munson, M.D., Lieutenant Medical Corps, U. S. Navy, retired; lecturer on hygiene and instructor in military surgery, School of Medicine, Georgetown Univ.; formerly instructor in medical zoology, Georgetown College; late brigade surgeon, and Provisional Brigade, U. S. Marines. Illustrated, pp. 793. Paul B. Hoeber, Pub., New York, 1920.

ARTERIOSCLEROSIS AND HYPERTENSION, with chapters on blood pressure. By Louis M. Warfield, A.B., M.D., (Johns Hopkins), F.A.C.P.; formerly professor of clinical medicine, Marquette Univ. of Medicine. pp. 265, 3rd ed., C. V. Mosby Co., St. Louis, 1920.

HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M.D., F.A.C.S., professor of protology, Detroit College of Medicine. 3rd ed., revised and rewritten, C. V. Mosby Co., St. Louis, 1920.

FUNDAMENTALS OF HUMAN ANATOMY. By Marsh Pitzman, A.B., M.D., professor of anatomy, Dental Department of Washington Univ. pp. 356, C. V. Mosby Co., St. Louis, 1920.

EXOPHTHALMIC GOITER AND ITS NONSURGICAL TREATMENT. By Israel Bram, M.D., instructor in clinical medicine, Jefferson Medical College, Philadelphia, pp. 400, C. V. Mosby Co., St. Louis, 1920.

LECTURES ON MEDICINE TO NURSES. By Herbert E. Cuff, M.D., principal medical officer to the Metropolitan Asylums Board; late medical superintendent, North Eastern Fever Hospital, Tottenham, London. Illustrated, pp. 257, 7th ed., P. Blakiston's Son & Co., Philadelphia, 1920.

ELECTRO-THERAPY, Its Rationale and Indications. By J. Curtis Webb, M.D., late member of council Electro-Therapeutic Section, Royal Society of Medicine; late Major R.A.M.C. Specialist in Radiology and Electro-Therapeutics. pp. 90, P. Blakiston's Son & Co., Philadelphia, 1920.

MASSAGE, Its Principles and Practice. By James B. Mennell, M.D., medical officer physico-therapeutic department, St. Thomas' Hospital; medical officer in charge of the massage department, Special Surgical Hospital, Shepard's Bush. Illustrated, pp. 535, P. Blakiston's Son & Co., Philadelphia, 1920.

At St. Mihiel, France, in memory of the first great American battle effort of the war, the junior section of the American Red Cross, cooperating with the French Government, will finance the erection and operation of a model hospital for children.

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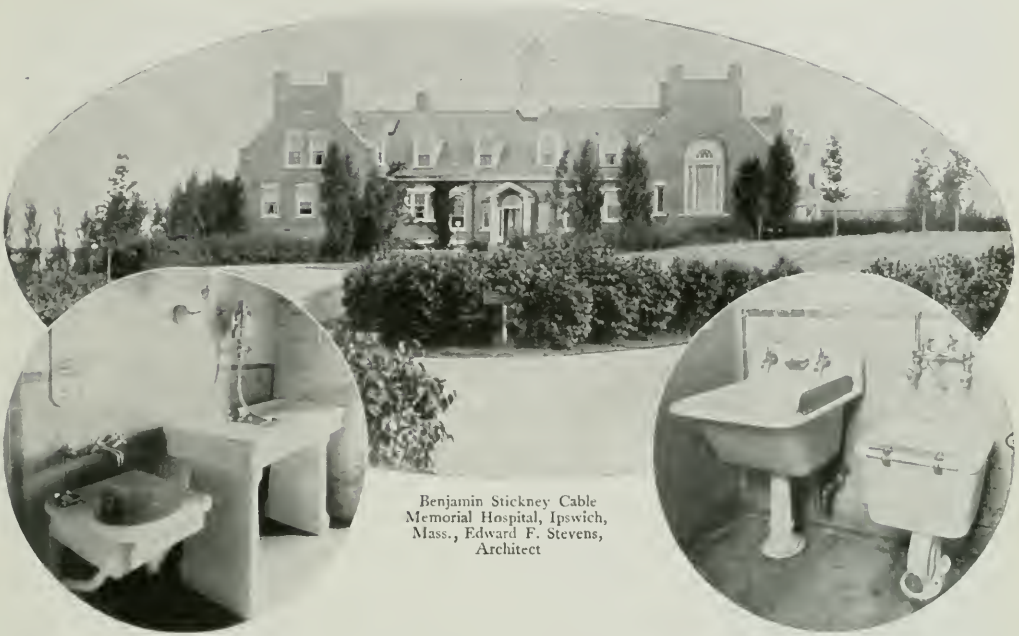

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FOREIGN CORRESPONDENCE

SCARCITY OF NURSES IN GREAT BRITAIN

THERE is an almost lamentable scarcity of nurses in this country and it is becoming a grave problem. The large city hospitals, even, are feeling the lack of experienced nurses, while in the smaller institutions matters in this respect are more serious by far. Girls are not coming forward, as formerly, for training. It does not appear that the situation will improve. Several reasons are given for this state of affairs, but the two most obvious causes are the following:

The first is that the present age at which the girl is allowed to begin her training is too high. A number of the largest hospitals will not accept any woman for training until she has reached the age of twenty-three. It is true that if she wishes she can go to other institutions at an earlier age; but the time she spends in these will not count when her training in the big hospitals begins. The significance of this procedure is that if a woman decides to become a nurse, either she must go to an institution which is not recognized at the very time when she is most adaptable and full of enthusiasm, or otherwise she must wait until she is old enough. During this period of waiting her friends will probably be in good positions. The result is that most girls, when they have attained to the necessary age, are already making their way, and do not feel disposed to give up good paying jobs for the inadequate wages and doubtful comfort of a probationer's life.

The second reason is the unattractive circumstances of training in the form of inadequate pay and long hours of work. Sir Arthur Stanley, the head of the British Red Cross and treasurer of St. Thomas' Hospital, gave an interview recently to a representative of an influential London daily journal in which he said that it was clear that the pay of nurses had in the past been inadequate, and must be increased to meet the high cost of living. But while allowing that pay is inadequate, he thought that the question of hours was a much more difficult one. The case of a private duty nurse is illustrative. She might have to work at critical times during almost the entire twenty-four hours, and indeed in one sense the whole time she is with a case she is at work all the time. Yet if anything in the nature of an eight hour day were to be adopted for private duty nursing, this form of nursing would practically disappear altogether, as very few people could afford to have three nurses, the number that would be needed. The College of Nursing had a scheme under which a fifty-six hour week was possible, the arrangement of the hours being left to the nurse and her employer over a period of fourteen days. With regard to the hospital nurse, it was fully realized some little time ago that the hours of work were far too long, and most of the hospitals have taken steps to reduce the hours. The great difficulty is that the working of shorter hours means that the hospital must find more nurses, and that in turn means that more accommodations have to be found. Nurses cannot be manufactured at short notice, and it is equally impossible at short notice to get the necessary accommodation for them. Moreover, it is a well known fact that the hospitals are going through a serious financial crisis, and the great burden of providing more nurse accommodation is being faced by most of them with considerable anxiety, but with equal determination to overcome it. Sir Arthur Stanley, however, believes that the real dearth of nurses is largely due to another cause. The training which the nurses receive at present is excellent but very narrow. After three or four years spent in being trained, the certificate which the nurse obtains qualifies her only for the actual nursing of the sick, and does not qualify her for the preventive side and for work on broader lines, such as that of the public health service.

Education Should Be on Broader Lines

It may be said in this connection that the College of Nursing has already approached the Ministry of Education on this latter subject, and hopes to bring forward a scheme that may be adopted by the General Nursing Council and the public departments concerned. It is also hoped that in the near future all the technical and advisory positions on the Ministry of Health will be filled by nurses who have had actual experience in hospitals, private duty nursing, and social welfare centers.

It appears that in this country the methods of medical practice are undergoing a change. The medical treatment of the future, it seems, will be more in the nature of preventive than remedial or curative treatment. In any event, it is certain that preventive treatment will be practiced on a larger scale than ever before. This being so, it is obvious that nurses should be trained in the principles and practice of preventive medicine as well as for nursing those suffering from disease and injuries. Nurses are urgently required for maternity cases, and with reference to this subject it is interesting to note that the policy of the Ministry of Health is to encourage local authorities as much as possible to provide accommodation for maternity cases. The housing shortage and consequent overcrowding has emphasized the need for homes for normal confinements as well as hospitals for complicated cases. Incidentally, it may be mentioned that the Town Council of Bradford was the first local authority to establish a municipal maternity hospital. This was established in 1915, and since that date forty-five maternity homes and hospitals have been started, the majority by local authorities, and the remainder by voluntary bodies working in cooperation with local authorities carrying out maternity and child welfare schemes.

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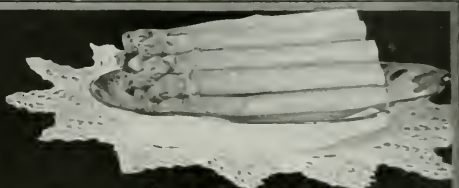

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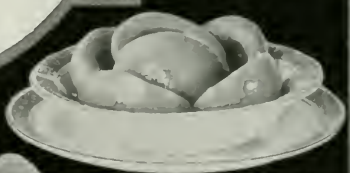
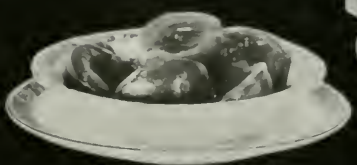


Yellow Cling Peaches

Peerless Plums

Bartlett Pears

Sliced Pineapple



Golden Apricots

RATE AIDED HOSPITALS

A NEW departure has been made, so far as the management of British hospitals is concerned. In the recent Ministry of Health Bill presented before the House of Commons a few days ago by the Minister of Health, Dr. Addison, authority is given to County Councils and County Borough Councils to maintain, or rather to contribute to the maintenance of, hospitals out of the rates. This departure from the point of view of long recognized and established practice is profound; but the critical situation in which the voluntary hospitals found themselves called for some such aid. It may help, too, to solve the hospital problem. Of course not many years ago a proposal of this kind would have met with the stoutest opposition. The British are conservative by tradition and the voluntary hospital system has been a source of pride to the nation. In the past it has answered its purpose well; also it goes without saying that the principle of voluntary support of hospitals was and is noble and generous. Doubtless it has been in many respects a blessing to the patients and especially to the poorer members of the community, in whose behalf indeed such institutions were primarily and solely intended.

But of late, and particularly since the beginning of the war, everything has been turned upside down. Hospitals now have more work to do by far; their incomes have not increased; and their expenses have been enormously augmented. As a matter of fact, something must be done to relieve their necessities, and done quickly, or many of them, perhaps the majority, will have to close their doors. Also the functions of a hospital are much wider than formerly, and the middle classes, the new poor, must be provided with facilities for proper medical and surgical treatment which up to the present time have been lacking. However, this phase of the question has been adequately discussed in previous letters; and it remains an incontrovertible fact that a change of the present system must be instituted. When all has been said that can be said on the subject, it is obvious that the supreme consideration must be the efficiency of the hospitals themselves, which have for some time past been living from hand to mouth, and greatly hampered in the efficiency of their service by their poverty, and by the intolerable strain placed upon the hospital authorities in the endeavour to raise sufficient money simply to keep going. There seems, then, to be no valid, or at any rate no insuperable, reason why hospitals should not be partly rate aided, nor also why a partial pay system should not be introduced.

Before dealing with these aspects of the matter it will be pertinent to consider the bill. The miscellaneous part of the bill, then, treats of two questions of the first importance to the public. The first is the regulation of the conditions under which the hospitals of the country can be maintained; and the second is the machinery under which the subjects of incipient mental disorder can be received into institutional shelter. Only the first of these will be discussed here.

The basic design of the measure is not to supplant the voluntary hospitals by placing upon the County Councils the responsibility of maintaining institutions for the treatment of disease. The idea, I conceive, is to endeavor to better the health service of the country in such a way that the voluntary hospitals shall be enabled to play a fuller part, unhampered by perpetual penury. It is intended, or hoped, that the measure about to become law will provide powers under which the pecuniary plight of the voluntary hospitals may be met. It is stated in some influential quarters that the voluntary system has broken down, and is, therefore, doomed to be wholly replaced by a system of state or rate contributions. This statement is not borne out by facts. On the other hand, it is admitted that the system requires a great deal more support, both on old lines and on new. That is to say, the deficits, as a result of working the hospitals on a voluntary system, have not been so gravely serious as to make the placing of the whole of the hospitals on the rates a necessary procedure. Still the general view is, and this was manifested at the discussion of the subject at the recent meeting of the British Medical Association, that steps to remedy the existing state of affairs must be taken at once.

It is interesting to notice that the system of pay wards, which has been largely ignored when debating the question of how best to establish the hospitals on an efficient and stable basis, is not only beginning to receive attention but is being put into practice in many of the institutions for the treatment of the sick and injured. The largest hospital in Great Britain, the London Hospital in the east end of the metropolis, is a conspicuous case in point. The ideal hospital was sketched in the imagination by some of the speakers at the sociological section of the British Medical Association meeting in Cambridge, and was somewhat in this wise: It should be one having wards for those who need the highly skilled attentions of great specialists, yet are quite unable to pay for such service. For the maintenance of wards of this kind, the health authorities would be responsible. Also there should be wards for those able to pay their bare actual cost to the institutions. For these individuals open wards would be provided. In addition there should be cubicle wards and private rooms, in which patients able to afford it would secure the advantage of privacy and the attendance of their own medical men. It certainly seems that such a scheme would place the hospitals on a sound economic basis, and leave the private nursing home, with its extravagant charges, for those able to afford such service.

It is to be hoped that the bill may assist in securing these reforms, which would constitute a long step in the direction of, in any event, greatly relieving a pressing and, in fact, impossible situation. As long as there are free beds for the poor, there would appear to be no reasonable objection to a development of "paying wards." It is only fair that the middle classes, on whom will rest a considerable part of the burden of supporting the hospitals out of the rates, should have at least a chance, not now possessed by them, of receiving some benefit from the institutions which they largely maintain.

HOSPITAL BUILT OVER NIGHT

The Seneca Falls Chapter of the Red Cross had a chance to demonstrate how a fully equipped hospital could be built over night. Last fall a serious outbreak of typhoid fever occurred, and was assuming grave proportions when the Red Cross took charge of the situation. Within twenty-four hours an emergency hospital was established, with a staff of fifteen trained nurses and equipment for fifty patients. The hospital was in use from September 7 to October 8. During this time thirty-four patients were admitted, three of whom died; 467 typhoid calls, and 413 home inspections were made. Volunteer workers, fifteen in number, drove cars, and twenty did sewing work. Ambulance service, ice, ice cream for patients, and lunches for night nurses were among the donations which were received.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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THE AMERICAN HOSPITAL ASSOCIATION MAKES NOTABLE ADVANCE IN 1920

By A. R. WARNER, M.D., Executive Secretary, American Hospital Association, Chicago, Ill.

FOR the first ten years of its existence the work of the American Hospital Association was in full agreement with its avowed purpose. The activities and the purposes alike, as stated in the Constitution, aimed to bring about an exchange of ideas and to create a literature on matters of hospital administration.

What is the basis of the American Hospital Association's recent activities?

Where is the Association headed, and what is it trying to do?

After ten years, the Association extended the membership plan from that of administrators only, to cover all who were engaged in the development of hospitals, indicating relative control of the hospitals by two classes of membership, active and associate. The expressed purpose was changed to "the promotion of economy and efficiency in hospital management," and comprehensive plans for beginning real service directly to hospitals to accomplish this purpose were discussed under the stimulus of Dr. Goldwater's presidential address. At this time there came about the definite and complete transition from the idea that the Association existed to aid superintendents in their work of administration, to the idea that the Association existed to help the hospitals themselves in their task of providing good care for the sick. A number of activities designed to further this new policy were then instituted. Soon after this the purposes of the Association, as defined in the Constitution, were changed to the present comprehensive form, which commits the Association to an active policy of broad service, directly to the institutions themselves.

In addition to the development of the idea of service directly to the individual hospitals, the idea of service to the field in general had been developing. This was expressed in several ways. In 1909 the plan that the "permanent headquarters" of the Association should be a "Bureau of Information" was expanded by Dr. Charles P. Emerson into a plea for the establishment of a central repository for the accumulation of architectural plans of hospitals and other data, and a committee was appointed to develop plans for securing this. In this year, also, plans were made to serve the hospital field by inactive legislation.

In 1916 the Constitution was changed to provide for "geographical sections," these sections to be the various State and Provincial Hospital Associations. This idea had first been advocated in 1908. The avowed object of this change was to build up a strong central association to include all the others and to become a power for the general development of the hospital field.

The establishment of Institutional Membership three years ago was but the creation of a new means to aid in carrying out the expressed policies of the Association. It created specific opportunities for direct service to the institution, as had long been planned, and also provided the funds for the support of this service It did not change in any way the Association's fundamental purposes or general policies.

At the beginning of 1920 there was need for a fresh start in the work. During the war the executive secretary had taken the opportunity for more direct service in the army. For two years

a part time arrangement for an executive secretary had been the best the Association could secure. The beginnings made by the office in Washington were almost lost, and it was indeed fortunate that arrangements could be made to save all that was saved.

Basic conditions had changed materially in the last few years. Hospital journals had become established, adequate for the field, and better qualified to carry on the work of developing hospital literature and furnishing a medium for the exchange of ideas than the Association of itself could ever have been; especially if these journals were edited under the stimulus from an Association that was doing something more. Thus the Association had lost the main job for which it was created and which it had always made its principal activity. This job could no longer serve as a justification for existence.

To the trustees, therefore, came the responsibility of directing the Association into activities that would justify its existence under new conditions, and which were commensurate with present enlarged resources and extended opportunities. The vision as embodied in the Constitution, authorized any and every activity for the welfare of hospitals. The situation demanded not more words, but action.

Service Made Controlling Policy

The decision was to get busy on some of the things to which the Constitution committed the Association. The expressed policy of service seemed right, and it seemed clear that it should be the controlling policy. This it became, and others must be the judge of the execution thereof —whether it has been adequate, satisfactory, and adapted to the opportunities and to the resources.

The accomplishments of the past year's work have, to some at least, been distinctly encouraging. A few points should be mentioned:

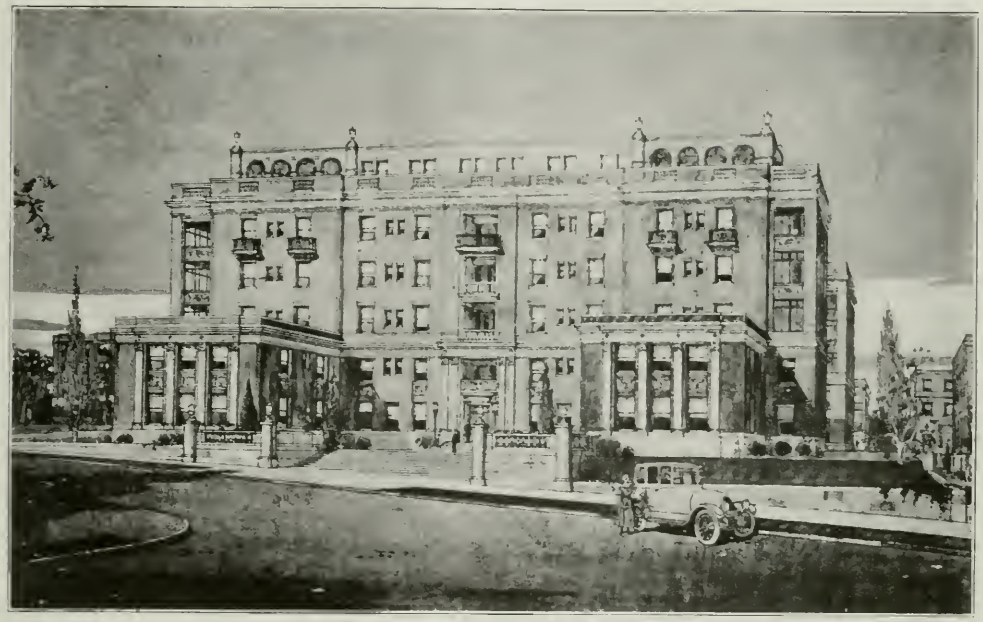
1. Chicago was selected as the site of the home office of the Association. This was done to make it possible for the Association to become in fact, as well as in name, a national and international body. It was also appreciated that the same considerations had already led several other national organizations to place their home offices in Chicago and would in the future induce others to do likewise; so that in Chicago there can develop the maximum benefits from contact with other national associations.

2. Two special policies begun by the Washington office were revived. A distinct effort is being made to place the printed Transactions of the Annual Conference in more public libraries in order to make them available to other than our members. The employment service for administrators and department heads was again made a regular part of the office work.

3. The dream of ten years ago was accomplished. It is now fortunate that Congress did block the plan of developing in the office of the United States Public Health Service a library of hospital plans and other data. We now have this library located in the same building as the office of the Association, and a committee directly and primarily interested in hospital development determines its policies and directs its work. The Hospital Library and Service Bureau, organized under the American Conference on Hospital Service, with liberal aid from the Rockefeller Foundation, will more than meet every plan and every hope ever expressed in the Association in regard to such a bureau. The American Hospital Association contributed directly to its organization and to its development, and each member of the Association should feel that a part of his dues are being spent for the maintenance of the Library, and he is, therefore, free to ask service of it.

4. The logical development of the policy of service in all hospital problems obviously required that the aid of the best informed people in various departments become routinely available to the members and that they be satisfactorily paid for their work. The answer to this was the departmental service bureau. A beginning was made with the establishment of the Service Bureau on Dispensaries and Community Relations, and the selection of a recognized leader in dispensary work as its director.

5. The Association has begun to attract outside support. This has been particularly encouraging. (a) A man well known for his interest in public health and philanthropic work offered to provide the Association with funds necessary to make a careful survey of hospital social service work in the United States and Canada. This has been done, and before this article is in type the printed report will be in the hands of every member. (b) A man interested in the development of hospital work has provided the Association with the funds necessary to support a Service Bureau on Hospital Social Work with a director paid for services rendered. One of the best known hospital social workers in the country was secured for this position. This (the second) Service Bureau is now in operation, and ready to help you with your problems in securing an efficient social service department in your hospital. (c) A man interested in hospital construction has provided the Association with funds with which to conduct a survey of the known facts concerning flooring materials adapted to hospital uses, and to compile these facts, together with a con-



More like a luxurious hotel than a hospital is the Charles T. Miller Hospital, Inc., which was opened on December 1, 1920, in St. Paul, Minn.. Its capacity is 216 beds. C. H. Johnston, architect.

sensus of opinions, into a pamphlet for the guidance and information of hospital executives. Two other possibilities are now under discussion.

It is clear that the Association, if it does what it can of itself to develop its usefulness in the hospital field, will attract more and more support from outside sources, and decisions that special pieces of work will be more effective if done through the Association will be more frequent.

6. The policy of issuing to the Institutional Members, Service Bulletins containing material of general and timely usefulness was inaugurated. Twenty-six were issued in 1920. Part of these were special information concerning the purchase of supplies, and part contained practical suggestions for the efficiency of work and the general protection of the institutions. Expressions of appreciation of the service rendered by the Bulletins have been many. The Bulletins will be continued.

7. The development of the whole year most important to the progress of the Association in the matter of rendering valued service to the hospital field, has been the recognition by the trustees of the responsibility to give official approval to policies generally held by the leading hospital administrators as the best. Superintendents familiar with the literature, and who attend the Conference each year know these policies full well, but the superintendents of new hospitals and hospitals away from centers of population may not know them. Even if these superintendents do personally know them, there may be a need for additional authority to convince the trustees of the institutions. An official position taken by the American Hospital Association will accomplish this better than it can be accomplished in any other way.

The uniform classification of all patients into three classes—pay, part pay, and free—was approved. The trustees endorsed the "minimum standard" for professional work in the hospital as developed by the American College of Surgeons. The Report of the Social Service Survey, which makes definite recommendations as to methods, was approved. The answers to all other inquiries must as yet be personal opinions.

We have talked much of the benefits from that kind of "hospital standardization" which would tell the new and distant institutions the best methods, and encourage them to adopt them. The American Hospital Association can start this work now. The constant stream of inquiries coming to this office asking the standards of the methods approved by the Association in many varied procedures, indicate the opportunity beyond any question. The opportunity at hand makes it a duty.

8. The decision of the Association, formulated in 1916, to organize State and Provincial Associations as geographical sections, that there may come a greater homogeneity in the organization of hospitals, was made operative. Three state hospital associations were made state sections of the American Hospital Association—Ohio, Wisconsin, and Michigan.

9. The Association was incorporated in the state of Illinois as an organization not for profit.

For many years past the Association has been growing in size and in the variety of its interests, especially in the matter of topics for discussion at the Annual Conferences. The last Conference contributed to this. The Association now seems almost ready to develop into the strong, general Association of all hospital work and workers, a power to protect and encourage hospital interests, and rendering constant, valuable service to the institutions and to the workers—such an Association as has been discussed for years and for which the Constitution now provides.

The gains from this growth are many, but some are now for the first time realizing that there are inevitable losses. While the Annual Conferences will become a smaller part of the activities of the Association as other activities are developed, they will always remain an important activity. The growth of the Association is already causing changes in the meetings objectionable to some personal members. The larger attendance, the sections attracting persons with varied interests, produces confusion and prevents the degree of personal contact and acquaintance which was possible at the earlier meetings, which were opened with a roll call. The men and women who attend the Conference for the first time are justified in feeling lost. However valuable the meetings may be to them otherwise, the gain from personal contact is distinctly less than it once was.

Fortunately, the remedy is not far behind this condition. The advantages of the Association must be open alike to all the hospital people of the United States and Canada. There can be no restricting the personal membership. If the round table is now too large and more would like to attend, there is but one solution, more round tables. If the other meetings are now too large to permit of discussions helpful to individual members and the number attending will further increase, there is but one solution, more meetings. It has long been recognized that the ideal condition and the remedy for these ills of the Association was the development of geographical section meetings attended by every hospital worker in the district. The districts can be small enough to permit meetings giving the maximum advantages of personal contacts, and opportunity to have individual problems discussed in the round table. For many years, and perhaps always, state and provincial sections will serve satisfactorily in this way.

There will always be general practices and methods common to all hospitals to discuss. There will always be national and general policies to formulate. These must be determined at the meetings of the American Hospital Association. At these meetings there must be the discussions necessary to determine those policies which are so proven that they can be advanced and urged as "standard." The state and provincial associations must develop the round tables as the American Hospital Association develops this other work.

The policy of the trustees for the future is simple. It is to get busy and do something about those things which the Constitution and general discussions have long decreed that the Association should do.

Every effort will be made to develop state and provincial associations.

All the beginnings made in 1920 and before will be pushed to further development.

Realizing that all the reasons for the existence of the Association and for the support it is asking are based upon the value of the service it can render to the individual hospitals, to the personal members, and to the hospital field, all propositions will be considered in the light of the service they can get over to the Institutional Members, to the Personal Members, and to the field in general.

Although there are now more recognized opportunities for service than the income of the Association will support, discussions and suggestions are invited.

The Association will ask that every bona fide, proper hospital in the United States and Canada become an Institutional Member, and that every hospital worker become a Personal Member. The Association will spend every cent of the income received thereby in the development of service to be rendered in return to each member, worth far more than the cost.

The trustees ask that you do your share to help. Your help is needed.

HOSPITALS FIND HOUSE-ORGANS EFFECTIVE

The November 29 issue of The Hennepin Commonhealth, published by the Hennepin County Public Health Association at Minneapolis, Minn., is devoted wholly to the affairs of the Minneapolis General Hospital. The little leaflet gives statistics showing the growing use that was made of the hospital during 1920, and numerous interesting items regarding the institution's work. A number of hospitals are now publishing little house organs of their own. They find them effective mediums of publicity.

THE WORK OF THE CATHOLIC HOSPITAL ASSOCIATION IN 1920

By B. F. McGRATH, M.D., Secretary-Treasurer, Catholic Hospital Association, Milwaukee, Wisconsin

Since its organization in 1915, the Catholic Hospital Association has had a spectacular growth in size and achievement.

Some of these achievements are:

The organization of state, provincial, or sectional conferences, to help in unifying the activities of the hospitals, and to give them strength in their localities.

The institution of diocesan directors of hospitals to help and encourage hospital work in their sector.

The establishment and issuance of "Hospital Progress," an official magazine.

The conducting of summer schools in several medical centers for hospital workers.

BEGINNING its career in the year 1915, with a hospital membership of forty-two and an individual membership of twenty-five, the Catholic Hospital Association has steadily grown, until now at the beginning of the year 1921 it has in its membership four hundred and fifty-three hospitals and over thirteen hundred individuals, the majority of the latter being hospital doctors. The present prospect is that these figures will be considerably increased before the 1921 annual meeting. Since its organization the Association has held five conventions: two in Milwaukee, two in Chicago, and one in St. Paul. The attendance at the conventions has also steadily increased, until at the 1920 convention in St. Paul it reached over one thousand. From the reports of our hospital observers, correspondence from members, and the lively interest manifested throughout the organization's field, the officers of the Association are convinced that the principal purpose of the Association is being gradually realized in practical accomplishments. Hospital workers, in general, have recognized the need for the present day organized efforts in behalf of hospital betterment, and, with few exceptions, are cooperating for the successful achievement of the object.

Some new features have been introduced into the Association. The first of these is state, provincial, or sectional conferences, which are to meet at such time and place as will be suitable to those concerned. The meetings are to be independent of the regular annual convention of the organization as a whole. Wisconsin has already organized its conference, and its first meeting was held in Milwaukee, September, 1920. Similar conferences are in the process of development in different parts of the country. We look for very practical and substantial results from these organizations in the way of unifying the activities of the hospitals, and of giving them strength in their respective localities for the hindrance of bad and unfavorable legislation, and for the promotion of good laws.

Another feature has been the institution of a diocesan directors' division of the Association. The function of this division will be to ask the hierarchy to appoint diocesan directors of hospitals, who will have the power from the archbishop or bishop to visit the hospitals in their respective dioceses, to help and encourage in every possible way the work in the hospitals, and to represent them whenever they need representation; in a word, to strengthen, safeguard, and promote the work scientifically, ethically, religiously, socially, and politically. Several directors have already been appointed by the hierarchy, and it is confidently expected that this very important division of the Association shall in the near future be extended throughout our field.

The greatest step forward in the activities of the Catholic Hospital Association during the year 1920, was the establishment and issuance of its official magazine, namely, *Hospital Progress*. This is a monthly journal devoted to the furtherance of all the aims and purposes of hospital work, and dealing particularly with the special interests of the hospitals directly within the field of the Association's activities. The first issue of the magazine was the May number, 1920.

Summer Schools Conducted

Still another feature of the Association has been the conducting of summer schools for laboratory and similar technicians. Already such schools have been held at Marquette Medical School, Milwaukee; at Loyola Medical School, Chicago; St. John's Hospital, Springfield, Ill.; and in several other hospitals. The plan is to steadily develop this feature to the establishment of several high grade centers for the training of hospital superintendents, teachers, and superintendents of nurses, and of all kinds of laboratory technicians, record keepers, dietitians, and social

workers, especially from among the sisterhoods. The slogan of the Catholic Hospital Association is "hospital progress," in behalf of the best interests of the patient. This means endeavoring every day to improve, with a full realization of the fact that perfection can never be reached. While gladly cooperating with all others interested and engaged in the work of advancing hospital service to the sick, the Catholic Hospital Association clearly realizes that it has special functions to perform, functions that are peculiar to itself and its field, functions that give it an unquestionable reason for its existence, now, and throughout the years to come.

STATE HOSPITAL ASSOCIATION ACTIVITIES IN 1920

THE OHIO HOSPITAL ASSOCIATION

By FRANK E. CHAPMAN, Superintendent, Mount Sinai Hospital, Cleveland, Ohio.

THE Ohio Hospital Association's activities during the year 1920 have been directed solely toward the stimulation of its membership, securing an expression from hospitals of the state, and the formulation of a legislative program bearing on probable legislation to be submitted to the Ohio legislature which convened in January.

The chief piece of legislation being advanced by the Association was a bill to provide for the licensing of hospitals by the state department of health, these licenses to be issued for a period of one year, and to be based upon at least an annual inspection of the hospitals. It is hoped that, with such a scheme in effect in the state, and with the centralization of the control of all institutions, a more uniform standard of hospital practice may be obtained.

The Association has adopted the policy of watching the proposed bills that may affect hospital or allied agencies, and attempting by advice to assist in the passage of such bills as will be of maximum benefit to all concerned. This policy has been decided upon by reason of the fact that with ill-considered legislation, the possibility of having laws passed that will not react to the benefit of institutions is very great.

The annual meeting of the Ohio Hospital Association will be held in the city of Cleveland, May 16 to 20; this meeting to be held in conjunction with the Ohio League of Nursing Education, and the Ohio Association of Graduated Nurses. It is hoped that, with a combination of this kind, the problems typical of all three groups may be discussed and a maximum benefit derived from the discussions.

THE MICHIGAN HOSPITAL ASSOCIATION

By DURAND W. SPRINGER, Superintendent, University Homeopathic Hospital, Ann Arbor, Mich.

THE Michigan Hospital Association was organized at a meeting held in Lansing, in December, 1919. The second meeting was held in Detroit in June, 1920, and the third meeting was held in Grand Rapids in December, 1920. Each meeting has had about one hundred persons present, representing hospitals in twenty different cities.

During the first six months of the year special attention was paid to the question of shortage of nurses. A central committee was appointed which, in turn, organized committees in each congressional district in the state. Two field workers were employed, the assistance of newspapers was readily secured, practically every high school in the state was addressed by either a graduate or a pupil nurse. Hospital Sunday was observed in many of the cities, and as a result of this activity most of the training schools had a larger number of pupil nurses in the fall of 1920 than in the fall of 1919. However, the increase was not as large as it should have been in view of the increased demand.

The work of the Association during the second six months was largely in connection with preparing legislation to be introduced at the Michigan legislature which convened in January. Amendments were prepared to the present law governing registration of nurses, modeled on the New York law, and providing for a class of assistants known as trained attendants. In this work the committees from the Michigan Hospital Association and the Michigan Nurses' Association cooperated. A bill was also prepared, modeled after the Hotel Keepers' Law, looking to the protection of hospitals from fraudulent information given at the time of registration.

The first president of the Association was Dr. Warren L. Babcock, superintendent of Grace Hospital, Detroit, who presided at the Lansing and Detroit meetings, and the second president is Dr. Christopher G. Parnall, superintendent of the University Hospital, Ann Arbor, who presided at the Grand Rapids meeting and who will preside at the next meeting, to be held in Ann Arbor in June of this year.

THE UTAH STATE HOSPITAL ASSOCIATION

By E. F. ROOT, M.D., Holy Cross Hospital, Salt Lake City, Utah.

THE Utah State Hospital Association was started at a meeting in the Reed Hotel, Ogden, on April 1, 1920. Committees were appointed and arrangements made for a first meeting, which was held April 22, 1920, at the Holy Cross Hospital, Salt Lake City. The following hospitals were represented and formed a permanent organization: The Dee Memorial Hospital, Ogden; Holy Cross Hospital, Salt Lake City; Groves Latter-Day Saints Hospital, Salt Lake City; St. Mark's Hospital, Salt Lake City; Salt Lake County Hospital, Salt Lake City; Utah-Idaho Hospital, Logan; Provo General Hospital, Provo. Officers were elected for the ensuing year, a constitution and by-laws were adopted, and the usual standing committees were appointed.

On June 17, 1920, the Association met in the assembly room at the Holy Cross Hospital for a scientific meeting. There was an address by the president, W. W. Rawson, on the general objects and aims of the Association, and one by Dr. James Walsh, of the Fordham University, on the good results to be attained by hospital associations. Papers were read on the nursing course to be given by the University of Utah; and on the plan of cooperation between the University and the hospitals of the state. The president of the state association of nurses and others spoke on the cooperation of that association with the University plan.

On December 17, 1920, the Association met again at the Holy Cross Hospital. The president spoke on matters of needed legislation for the hospitals, especially regarding compensation for hospitals under the state Com-

pensation Act. He called attention to the fact that hospitals should be paid for all the time a patient is in the hospital. He spoke also on the compensation for student nurses, and the sanctioning of post-mortems by law, to protect all parties. Many of the members spoke on the matters presented by the president. The paper of the evening was on history taking and keeping, outlining the plan carried on at the Holy Cross Hospital. The subject was then discussed at length.

The Utah Association is alive to the necessity of cooperation of the hospitals of the state, and intends to hold meetings every three months.

OTHER STATE ASSOCIATIONS

THE first meeting of the Wisconsin Hospital Association, which had been formed through the efforts of the Milwaukee Hospital Conference, was held September 16 and 17, at Milwaukee. There was a total registration of 159 delegates and guests, and thirty-five hospitals were represented. Dr. Warner of the American Hospital Association spoke on the plan for geographical sections of the American Hospital Association, and other addresses were given on the subjects of safeguarding the hospital milk supply, the duty of the hospital to the community, occupational therapy, and the training of student dietitians. There were interesting discussions on nearly all of these subjects. A resolution was passed to take steps toward obtaining legislation that would give the hospitals fair payment for workmen's compensation cases. The board of trustees, at its meeting on September 20, outlined an energetic and constructive program for the year to come.

At the second annual convention of the New Jersey Hospital Association held in Newark, on June 24, there was a discussion of compensation cases. A survey of the hospitals of the state showed that three of the sixty-three hospitals are equipped to handle such cases, and that there are 33,000 physically handicapped persons in the state entitled to compensation. Although New Jersey was the first state to adopt compensation laws, its hospitals have been backward in preparing to treat these cases. The best sign of progress would be the establishment of a rehabilitation clinic in each of the five industrial zones of the state, and a great zest on the part of the hospitals in doing more for initial surgery.

The first annual meeting of the Connecticut Hospital Association was held at Hartford, June 2, and twenty-two hospitals were represented. The subjects discussed were: the best method of increasing the enrollment in training schools; uniform rates, salaries, and hours for special nurses; and industrial and health insurance.

The North Carolina Hospital Association held its second annual convention at Charlotte, on April 20, 1920. The president gave an address on training school methods and hospital standardization. In fact these two things seemed to be the keynote of the meeting, as there were other talks on standardization and on the training school problems of North Carolina. There was also a paper on the demand and supply of local hospital facilities in the state.

The Georgia Hospital Association was organized in 1920.

We and the higher animals have more activities, more potentialities than the lower forms of life, but, being built up from protoplasm, we are cousins-germane to every roadside weed, or every flower of the field. And for this, if for no other reason, we should walk humbly.—Robert W. Mackenna.

OHIO HOSPITAL ASSOCIATION EXECUTIVES MEET AT TOLEDO HOSPITAL

Executive members of the Ohio Hospital Association held a called session at Toledo Hospital, Monday, February 7, by the invitation of P. W. Behrens, president of the Association. The trustees of the Toledo Hospital gave a dinner in their honor, and invited one representative of each Toledo hospital, also business men and representative Rotarians. Interesting addresses were given, Doctor A. R. Warner, executive secretary, American Hospital Association spoke on "The Hospital Trustee"; Dr. A. G. Bachmeyer, superintendent, Cincinnati General Hospital, on "Why Are Hospitals Not Self-Supporting?"; Mr. Frank E. Chapman, superintendent, Mt. Sinai Hospital, Cleveland, on "The Duty of the Citizen to the Hospital."; and Rev. M. T. Griffith, of St. Elizabeth Hospital, Youngstown, Ohio, on "The Heart of the Hospital." Mr. L. S. Ottenheimer, member of the board of trustees of the Toledo Hospital, acted as toast master. The musical program was rendered by the Stuts Orchestra.

DR. GEORGE E. ARMSTRONG,
President,
American College of Surgeons.

DR. L. R. BALDWIN,
President,
American Hospital Association.

DR. FRANK BILLINGS,
President,
American Conference on
Hospital Service.

MR. PLINY O. CLARK,
President,
Protestant Hospital Association

REV. C. B. MOULINIER,
President,
Catholic Hospital Association

Dr. Billings took his degree in medicine at Northwestern University, in 1881, and after an internship at Cook County Hospital, spent four years studying in Vienna, London, and Paris. For many years he has been a professor at the University of Chicago, and consulting physician to several of the leading Chicago hospitals.

Dr. Armstrong graduated from McGill University in 1877, and is now at the university as professor of surgery of the faculty of medicine. He occupies the position of chief surgeon at the Royal Victoria Hospital, Montreal, and also consulting surgeon at the Montreal General Hospital, and the Protestant Hospital for the Insane at Verdun. During the late war he was a colonel in the Canadian Army Medical Corps.

Dr. Baldwin is superintendent of the University of Minnesota Hospital at Minneapolis. He has also had much to do with the planning, construction and organization of the new Charles T. Miller Hospital in St. Paul which was opened on December 1st, 1920, with a capacity of 216 beds. He is at present superintendent on a part time basis.

Mr. Pliny O. Clark is now superintendent of the Presbyterian Hospital in Denver, which is about to erect new buildings at a cost of about $2,000,000. Mr. Clark's development of the Ohio Valley General Hospital at Wheeling, West Virginia, resulted in his being selected as head of the Denver institution.

Rev. Father C. B. Moulinier is connected with the Marquette University, Milwaukee, Wis. He is also the chairman of the executive committee of the editorial board of *"Hospital Progress,"* the official magazine of the Catholic Hospital Association.

REVIEW OF HOSPITAL PROGRESS IN CANADA DURING THE YEAR 1920

By M. T. MacEACHERN, M.D., C.M., General Superintendent, Vancouver General Hospital, Vancouver, B. C.

THE greatest advance made in the hospitals of Canada during 1920 is the more serious and comprehensive realization of their function, their duties, and their obligations. This is due in a great measure to the awakening interest in this work, one feature of which is the hospital standardization program. This interest has manifested itself in numerous ways. There has been much better teamwork between our various hospitals, resulting in the formation of local and provincial associations, with the usual splendid objectives. Many new hospital associations have been formed, and those already in existence were further developed and strengthened, so that today almost every province in Canada either has an active and efficient association or is about to have one. There are today in Canada well established and efficiently organized hospital associations in Manitoba, Saskatchewan, Alberta, and British Columbia, and all of these have held very successful conventions during 1920. I believe Ontario has a hospital association but I am not familiar with the work which they have done so far. In Quebec an association will no doubt soon be formed, as a splendid local organization is doing good work in Montreal. The maritime provinces are working with renewed interest along similar lines.

The hospitals of Canada during the past year seem to have come to a fuller realization of their obligations. This is largely due to the increased interest in hospital work, which has been marked.

The western provinces formed the Western Canada Hospital Association.

A better class of men and women are accepting positions in our hospitals today.

There is a possible solution ahead for the problem of financing hospitals, in the ownership of the institutions either by the municipality or by the province.

The nursing shortage is less acute.

As for the future, 1921 promises to be a year of efficiency and progress.

Western Provinces Form Association

In April, 1920, the four western provinces, Manitoba, Saskatchewan, Alberta, and British Columbia, held a representative meeting in Calgary and formed the Western Canada Hospital Association, the prime objects of which were to promote hospital standardization, and act as a clearing house for the common problems of the four provinces.

It is most gratifying to find this greater interest manifested in hospital work. Today we are finding better men and women accepting hospital positions, and governing boards anxious to reoganize their institutions for greater efficiency. There is also a much more careful medical audit kept over the work done in the various institutions, and thus better control is exercised, leading to much improved results in care and treatment of patients. Indeed, throughout Canada the principles as laid down by the hospital standardization program are being seriously applied in all institutions, large or small; and I believe that last year saw almost a revolution in our hospitals, owing to the greater realization of their responsibilities.

Finances and Nursing Main Problems

There are, however, two problems still confronting hospitals, namely, finances and nursing. Almost every public hospital in Canada that is doing real work, except the heavily endowed, is showing a deficit, and to such an extent that these institutions cannot carry on efficiently much longer under such conditions. Throughout Canada much thought has been given to the question of financing hospitals. There are usually three sources through which the institution gets its revenue, outside of fees from patients, which in no case would cover the expenses, and these are, first, philanthropy; second, municipal sources; third, provincial sources. We all know that philanthropy has been much overdone. The people have been asked to do more than was possible for them to do, because of the war, and conditions following, the high cost of living, and the heavy dominion and provincial income taxes. The municipal and provincial governments are still contending with each other as to the extent of their obligations. The solution now lies only in two directions, first, the municipalization of hospitals, or, second, the provincialization of hospitals.

Saskatchewan and Alberta are developing a very efficient municipal system of hospitals. British Columbia is laying plans for more of a provincialization type of institution, but the legis-

lation covering such a change will not be ready for a year. At any rate, we must find more money for our institutions, and that at once, or we will not be able to carry on with the same efficiency. Hospitals in Canada will not consent to curtailment of expenditure at the expense of efficiency and service to the patient.

Shortage of Applicants Decreasing

The nursing problem in Canada is chiefly the shortage of applicants, but this has now very materially improved, so that the larger institutions are again picking and choosing from among the applications which they receive. Greater efficiency characterizes the training schools in improved methods of teaching, more serious recognition of the need of competent instructors, and better teaching facilities. There is also a desire and tendency to connect up, where possible, with our universities, and several of the provinces are taking steps in this direction. The affiliation of the Vancouver General Hospital Training School with the University of British Columbia is now beyond the experimental stage, and this year twelve students are taking the course offered in the University. These students form a distinct unit in the University of British Columbia. The sooner the governing boards and those in authority in training schools recognize the training of nurses as a part of the educational program of any province, the better it will be for this branch of work in Canada.

The year of 1921 promises to be one of progress and success, with further development of provincial organizations and promotion of teamwork between hospitals and provinces, ultimately resulting in greater efficiency and service than ever before.

Health is the essential factor in productiveness, prosperity and happiness and hence in the advancement of civilization.—Sir Frederick Treves.

WOMEN IN PUBLIC HEALTH WORK

The first meeting of the American Association of Women in Public Health, organized to afford women who make public health their profession an opportunity to study together the problems of their work, was held in Washington late in November.

Eligible to membership in the Association are several hundred women, of whom about forty are attached to the United States Public Health Service. Others include state health officers, child hygiene directors, laboratory workers, publicity directors, public health nurses, and social service administrators.

With the members of the Association was assembled the Women's Advisory Council, which for a year has been cooperating with the United States Public Health Service in carrying out the program of combating venereal disease in civil communities. This council is composed of representatives of as many women's associations. These are Judge Kathryn Sellers of the juvenile court, Washington, D. C., Woman Lawyers' Association; Dr. Valeria H. Parker, Hartford, Conn., National League of Women Voters; Dr. Kristine Mann, New York City, Women's Foundation for Health; Mrs. Raymond Robins, Chicago, Woman's Trade Union League; Mrs. R. B. Morgan, Washington, D. C., Association of College Alumnae; Mrs. Elmer Blair, New York City, General Federation of Women's Clubs; Miss Elizabeth Carter, Washington, D. C., Association of Colored Women's Clubs; Dr. Ida J. Brooks, Little Rock, Ark., National Federation of Business and Professional Women's Clubs; Dr. Elizabeth B. Thelberg, Vassar College, National Council of Women; Miss Ella P. Crandall, New York City, National Organization of Public Health Nursing; Mrs. Gertrude S. Martin, Ithaca, N. Y., Women's Christian Temperance Union; and Mrs. Leo H. Herx, New Haven, Conn., Council of Jewish Women.

SECRETARY OF CENTRAL COUNCIL OF NURSING EDUCATION SELECTED

Miss Carol Martin, who was formerly superintendent of Columbia Hospital, Milwaukee, is to be the new executive secretary of the Central Council of Nursing Education, Chicago, to succeed Miss Katherine Olmsted. Miss Martin is a graduate of Presbyterian Hospital, Chicago, and has recently been studying at Teachers' College, New York City. In her new position, Miss Martin will have charge of the publicity and propaganda work which is being carried on in the Middle West in the interests of nursing education.

The Municipal Tuberculosis Hospital, at Trenton, N. J., is one of the hospitals opened in 1920. Wm. A. Klemann, architect, Trenton, N. J.

REVIEW OF HOSPITAL STANDARDIZATION IN 1920

By FREDERICK W. SLOBE, M.D., Member of the Staff, American College of Surgeons, Chicago, Ill.

THE sun of early 1920 dawned upon a hospital world in which the program of hospital standardization, instituted some years before, was maturing steadily. Originating in the very hearts of the profession and hospitals, nourished by a common desire to improve hospital service, and stimulated by the zeal of its leaders, the campaign for hospital improvement had been accepted and welcomed by a large number of hospitals. With the pioneer work completed, the elaboration of the program and the publication of results remained to be accomplished in the ensuing year.

THE MINIMUM STANDARD

"The minimum standard is a statement of a practicable, workable, and constructive plan for hospital betterment. It is a standard that safeguards the care of every patient admitted to the hospital by insistence upon competence on the part of the doctor, upon thorough study and diagnosis in writing for each case, upon efficient laboratory work, and upon a checking up, at least once each month, of the clinical service rendered in the hospital. It fixes responsibility throughout the hospital. It encourages and even compels research. It costs effort rather than money. It defines the minimum service to the patient, which, beyond all debate, is essential."

The American College of Surgeons

During 1920 staff members of the American College of Surgeons again visited the general hospitals in the United States and Canada having a capacity of 100 or more beds. These men, all graduates in medicine, visited the hospitals not as unwelcome visitors, but rather as engineers, discovering first what the shortcomings of the institutions were in relation to the minimum standard, and then indicating how such shortcomings might best be overcome. The council meetings held at the various hospitals by these inspectors proved to be an important element in the success of the work.

The basis for this survey was the minimum standard, which is as follows:

1. That physicians and surgeons privileged to practice in the hospital be organized as a definite group or staff. Such organization has nothing to do with the question as to whether the hospital is "open" or "closed," nor need it affect the various existing types of staff organization. The word "staff" is here defined as the group of doctors who practice in the hospital, inclusive of all groups such as the "regular staff," "visiting staff," and the "associate staff."

2. That membership upon the staff be restricted to physicians and surgeons who are (a) competent in their respective fields, and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatever, be prohibited.

3. That the staff initiate and, with the approval of the governing board of the hospital, adopt rules, regulations, and policies governing the professional work of the hospital; that these rules, regulations, and policies specifically provide:

(a) That staff meetings be held at least once each month. (In large hospitals the departments may choose to meet separately.)

(b) That the staff review and analyze at regular intervals the clinical experience of the staff in the various departments of the hospital, such as medicine, surgery, and obstetrics; the clinical records of patients, free and paying, to be the basis for such review and analysis.

4. That accurate and complete case records be written for all patients and filed in an accessible manner in the hospital, a complete case record being one, except in an emergency, which includes the personal history; the physical examination, with clinical, pathological, and x-ray findings when indicated; the working diagnosis; the treatment, medical and surgical; the medical progress; the condition on discharge, with final diagnosis; and, in case of death, the autopsy findings when available.

5. That clinical laboratory facilities be available for the study, diagnosis, and treatment of patients, these facilities to include at least chemical, bacteriological, serological, histological, radiographic, and fluoroscopic service in charge of trained technicians.

Minimum Standard a Safeguard

To summarize, the minimum standard is a statement of a practicable, workable, and constructive plan for hospital betterment. It is a standard that safeguards the care of every patient admitted to the hospital by insistence upon competence on the part of the doctor, upon thorough study and diagnosis in writing for each case, upon efficient laboratory work, and upon a

checking up, at least once each month, of the clinical service rendered in the hospital. It fixes responsibility throughout the hospital. It calls for the "production sheets" of the hospital, but does not cause in any way violation of the confidential relationship between the doctor and his patient. It encourages and even compels research. It costs effort rather than money. It defines the minimum service to the patient, which, beyond all debate, is essential.

On October 11, 1920, the American College of Surgeons published its first approved list of general hospitals having a capacity of one hundred or more beds. The hospitals listed either met the requirements of the minimum standard on inspection or later reported that certain deficiencies had been corrected. Three hundred and seventy-seven out of the 697 hospitals were on the approved list. Since the publication of this list, twenty-eight additional hospitals have been added, making a total of 405 approved hospitals. Three hundred and four hospitals between fifty and one hundred beds in capacity were also visited, but no published report of these smaller hospitals has, as yet, been made.

In addition to personal visits to the hospitals, the American College of Surgeons, in the latter part of 1920, instituted state sectional meetings of the Clinical Congress of Surgeons. These meetings will be held once a year in practically every state and the provinces of Canada. In addition to the scientific programs, hospital meetings are held to which superintendents, members of boards of trustees, and staff members are invited. Further, at a meeting for the general public, the hospital standardization program is portrayed. These meetings promise to be a great stimulus to hospitals, physicians, and the general public, in promoting coordinated effort toward hospital betterment.

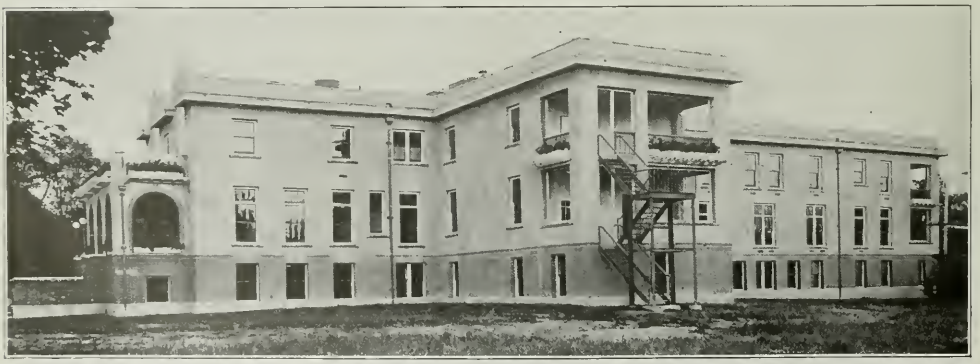
The American College of Surgeons and the hospital world suffered a distinct loss when Mr. John G. Bowman, for six years director of the College, resigned. On January 1, 1921, he left to assume his duties as chancellor of the University of Pittsburgh. His name has become almost synonymous with hospital standardization; his practical idealism has won its way into the hearts of hospital folk; and, as a result, the program of hospital betterment, which he so remarkably developed, will persist.

American Medical Association

In the *Journal of the American Medical Association* for August 7, 1920, was published the fourth revision of the list of hospitals furnishing acceptable internships. This list included 593 hospitals having a total of 361,162 beds, accommodating 3,420 interns. Of 6,440 hospitals, each having a capacity of over ten beds, and a combined capacity of 758,442 beds, 1,126 hospitals stated they desire interns, and of these, 593 were chosen as furnishing acceptable internships.

It was stated that there were approximately 3,000 graduates from the medical schools in 1920. To alleviate the shortage of interns various measures were suggested, such as increased length of intern service, increased number of resident physicians and surgeons, and the employment of laboratory technicians, record clerks, and stenographers.

The published list was subdivided into three sections as follows: section one, 469 general hospitals; section two, twenty-five state hospitals and asylums; and section three, ninety-nine other special hospitals.



The Good Samaritan Hospital of Sandusky, Ohio, is built in the shape of a cross, thus dividing the building into four distinct departments, all of which are accessible from the center of the building. The northern projection on the first floor is used for offices, reception rooms, staff room, etc., and on the second floor for the operating department. In the east and west projections are patients' rooms, all on the south side, the side toward the center being used for all the utilities, including the kitchens, elevators, etc. There is an isolation department on the first floor, connecting with a special exit on the south side. Stevens and Lee, architects, Boston.

The standardization work of the American Medical Association has been carried on by the Council on Medical Education. During the New Orleans convention in April, the name of this Council was changed to the Council on Medical Education and Hospitals. Its schedule of essentials in a hospital is well known, especially as regards intern training. The following are its recommendations concerning the work of the intern:

1. The hospital should have a set of printed rules and regulations defining the rights, duties, and privileges of the interns, which should be furnished to each intern or posted in a conspicuous place.

2. All of the work of the interns should be under the careful supervision of staff physicians. This is essential, not only to correct errors—such as may be expected from their lack of experience — and thereby protect the patient, but also that the intern may receive instruction through his errors and be able to avoid their repetition.

3. The writing of histories in connection with the examinations of patients.

4. Clinical laboratory work: — This work might well be divided into two portions, the first to be obtained in the ward laboratory work in connection with the examination and care of patients, the other portion to be obtained in the general laboratory in assisting the expert pathologist in the more technical, chemical, bacteriologic, and serologic work.

At the end of one of the projections of the Good Samaritan Hospital is the main entrance, of which this is a closer view.

5. Roentgen ray work:—The intern should receive a reasonable amount of instruction in the therapeutics of roentgen ray and also in the interpretation of roentgen ray plates and fluoroscopic findings of an expert roentgenologist or a qualified member of the hospital staff.

6. Anesthetics:—The intern should obtain experience in the administering of various kinds of anesthetics under expert supervision.

7. Dietetics:—The intern should be given instruction by a trained dietitian, or qualified staff member, in the feeding of both infants and adults as required in various diseases or conditions.

8. Maternity work:—Before finishing his intern service, the intern should have had experience under supervision not only in the delivery of normal maternity patients but also in the more common abnormal cases.

9. Necropsies:—The intern should obtain an experience in making necropsies either under the direction of or by assisting the hospital pathologist.

10. In his progress through his junior and senior service, the intern should assume, under careful supervision, an increasing responsibility in the diagnosis, daily observation, care and treatment of the patients under his service. This experience and responsibility should be in connection with as large a variety of cases as possible, and include at least such cases as are commonly met with by the average practitioner of medicine.

11. The intern should obtain a practical experience in the applying of surgical dressings in connection with the care and treatment of patients. As he progresses in his surgical intern service he should be authorized, under careful supervision, to perform not only minor surgical operations, but also some of the more common major operations. In major operations, the attending surgeon should stand by, or assist the intern. Experience in connection with accident service is, likewise, highly desirable.

12. The number of patients assigned to each intern and the routine work required of him should not demand more than eight (at most, ten) hours daily. He must have ample time to study and read up on his cases, both in the interest of his patients and for his own educational progress.

13. The intern service should extend through at least twelve months, and may to great advantage be continued through eighteen months or two years.

The annual convention of the American Hospital Association was held in Montreal in October.

The board of trustees in their report stated that five thousand copies of Service Bulletin No. 15 had been sent out to hospitals and hospital trustees. The following extract from the bulletin expresses its purpose: "We all know of the good work accomplished through the efforts of the American College of Surgeons, and that the basis of this is the minimum standard. The gain in the efficiency and value of the professional work of a hospital to the patients, through faithful adherence to the principle of the minimum standard is not a debatable question. It is generally accepted. Most of our members have recognized this and its principles are a part of the established policies of hospitals. But there should be no exceptions. A statement of the requirements of the minimum standard follows. Read them over and be positive that the professional work of your institution can meet them all—and as a minimum."

With this bulletin, a sample of one of the approved types of staff rules and regulations was also enclosed to guide hospitals in the formation or modification of their rules.

Progress in Canada

In Canada, also, steady progress has been made in standardization.

On April 26 and 27, 1920, a convention of the provinces of Manitoba, Saskatchewan, Alberta, and British Columbia was held in Calgary. This convention was attended by hospital superintendents, staff members, members of boards, and other interested parties. It was found that many hospitals in western Canada had already adopted the minimum standard. The Western Canada Hospital Association was formed, its object being the advancement of hospital standardization. The adoption of the minimum standard by all the hospital associations and hospitals of the four provinces was strongly urged.

In the four western provinces local hospital associations have been formed and they are all active in promoting the policy of hospital standardization. In Montreal there is a similar local hospital association with like aims and activities. In various parts of Canada special meetings of representative people have been called together for the purpose of discussing the general plans for hospital betterment, and the conventions of the American Hospital Association and the American College of Surgeons, held in Montreal in October, also added a decided impetus to this movement.

The spirit of Canada is well portrayed by a quotation from Dr. Malcolm T. MacEachern, superintendent of the Vancouver General Hospital: "If the medical profession is to advance scientifically and otherwise and to retain the confidence of the public, it must create hospitals which protect our right to be well. It must create hospitals wherein every man, woman, and child admitted receives the best care possible for the profession to give. After years of study, both the hospitals and the profession have agreed upon the most direct and practicable route to that ideal. The route is known as the minimum standard of the American College of Surgeons. There is nothing new about it and there is nothing debatable about it. The thing needed is merely swifter action, springing out of the deepest seriousness of the profession, in order that the ideal may come true.

"We do not have too many hospitals. We do not have enough hospitals. Our business, then, is not destructive. Our business is to accept the facts as they are, and then, with all the combined common sense which we possess, to change the poor or mediocre facts into ones of excellence. That process is hospital standardization."

Catholic Hospital Association

In May, 1920, the first number of *Hospital Progress*, the official magazine of the Catholic Hospital Association, was published. This magazine appeared as an outcome of the marked interest in standardization taken by the Catholic hospitals. Rev. Charles B. Moulinier, S.J., president of the Catholic Hospital Association, is chairman of the executive committee of the board of editors. The attitude of this journal toward hospital standardization can best be explained by the following quotations from editorials in the initial number:

"Hospital standardization is a slogan of the times. The present great movement is both a logical and a necessary one. It is logical because standardization is being done from within, being advanced by the medical world itself; it is necessary because there have been good reasons to believe that, unless adequate hospital service were assured, the government, either Federal or state, would assume the solution of the problem.

"What, then, is meant by hospital standardization? Briefly stated, it means that the hospital shall be so organized, so equipped, and so manned, as to insure adequate service to the patient; that is, to insure this degree of service in so far as it is within the bounds of reason for the hospital to give it. It is obvious that the problem of service to the patient presents two main phases for solution, namely, first, the cause and course of the pathological condition; second, relief. It is clearly manifest that in order to be able to solve the first phase of the problem (diagnosis), the necessary

sources of diagnostic evidence must be available and employed. On the other hand, in order to be able to solve the second phase of the problem (treatment), the required sources of therapeutic measures must be at hand and applied. To deny this proposition is to take a stand for the illogical, since it is plainly evident that, in the absence of sufficient data for diagnosis and measures for relief, the hospital cannot afford the patient a degree of service that is adequate."

The annual convention of the Catholic Hospital Association was held at St. Paul in June. A discussion of hospital standardization played a prominent part in the proceedings of the convention.

The keynote was sounded by Rev. Charles B. Moulinier, S.J., in the following quotation from his presidential address:

"By this time, I think, there is reason to assume that all understand that standardization, as used by the American College of Surgeons, means as a minimum, three things, namely, (1) real, vital, functioning organization; (2) complete records for every patient that enters the hospital; (3) laboratory service of all kinds, adequate to furnish sufficient data, along with the history, physical examination and clinical symptoms, on which to form a reasonably accurate diagnosis. . . .

"This effort to secure better hospitals, let me say in passing, is not a highbrow, autocratic, busybody attempt to pry into other people's business, to curtail individual or personal rights, to assume any authority whatever over institutions, organizations, or associations. It is not a usurper in any sense of the word, but it is the logical, inevitable, and irresistible march of an idea, and, if you will, an ideal; namely, the securing to the patient, just because he is a human being, the right he has, the God-given right he has, to expect full and high grade care in view of what modern medical knowledge and skill are."

Boards of Examination and Hospital Associations

In Pennsylvania, the work of Dr. John M. Baldy in the Bureau of Medical Education and Licensure is too well known to require further comment. This Bureau investigates hospitals in the state, largely from the standpoint of intern training, the hospitals being classified into groups giving general or special training. This service is distinctly valuable to interns in their choice of a hospital, and has proved to be a great stimulus to the hospitals themselves.

In New Jersey, the State Board of Medical Examiners has been similarly active in making an inspection of its hospitals. Information concerning all the hospitals was obtained in 1920, certain previously established minimum requirements having been used as a basis for the survey. The procedure followed was similar to that used in the state of Pennsylvania.

In Illinois, tentative plans for a similar work have been formed. The Illinois Hospital Association, together with the Council on Medical Education of the Illinois State Medical Society, representatives of the medical colleges of the state, and the department of registration and education, has adopted regulations for determining the eligibility of hospitals for the reception and training of interns. Personal inspections of the hospitals have been agreed upon.

On September 16 and 17, the Wisconsin State Hospital Association was organized in Milwaukee; thirty-five hospitals were represented by one hundred and fifty-nine delegates and guests. Officers were elected and organization perfected. Hospital standardization occupied a prominent place in the discussion.

In California the League for the Conservation of Public Health is conducting an elaborate survey of the hospitals. Dr. W. E. Musgrave is chairman of the Section on Advancement of Medical Education and Science and has been active in directing the work.

American Conference on Hospital Service

The American Conference on Hospital Service includes in its membership representative organizations interested in hospitals.

The second meeting of this Conference was held in Chicago in March, 1920. Organization was further perfected and the personnel of various committees appointed. The fourth meeting was held in Montreal in October and at this time a joint committee was appointed to consider the administration of hospitals and methods of procedure to be followed.

The work and aims of the Hospital Library and Service Bureau, which had been put on a permanent basis, were discussed. It is intended that this Bureau furnish information concerning practically all phases of hospital activities to any interested parties. During the convention of the American Hospital Association in Montreal, Dr. Frank Billings, president of the American Conference on Hospital Service, in his presidential address outlined the plans and purposes of the Library and Service Bureau. He urged the adoption of the policy of having the Hospital Library and Service Bureau serve as a depositary for the data and information collected by the various organizations of the conference, and suggested the appointing of a committee to bring this about.

The Protestant Hospital Association was organized in 1919, and further details leading to its perfection were carried out in 1920. It proposes to

make an investigation of the Protestant hospitals and institutions in the United States and its possessions. During the convention of the American Hospital Association in Montreal, several meetings of the Protestant Hospital Association were held. Mr. Pliny O. Clark, superintendent of the Presbyterian Hospital of Denver, was elected president. In the early part of 1921 a standard will in all probability be evolved for the active promulgation of its work.

The Status at the Close of 1920

With the results as presented above, what as to the attitude of the hospital, the medical profession, and the public toward this campaign? Each of these vitally interested parties must necessarily give its approval if this work is to grow. The mere fact that hospital standardization has reached its present proportions is in itself ample evidence of its general acceptance.

The hospitals, once realizing that the purpose was one of assistance and cooperation, welcomed personal inspections. Their inherent desire to improve readily asserted itself. The various organizations interested in this work have been flooded with correspondence requesting suggestions and advice.

The medical profession, having originated this movement, has been active in its support. In order for physicians to do better work, it was necessary to improve hospital facilities. Accurate case records were required to insure careful examinations and to enable future reference. Adequate laboratory facilities were essential for exact diagnosis. Regular analytical staff meetings were needed to make the clinical experience of one the experience of all. Only in this way could the entire hospital staff profit by the successes and failures of each member. And, as a result, a spirit of frankness, unity of purpose, and harmonious organization would be obtained.

The interest gradually being shown by the general public, too, is significant. This is only natural, as hospital betterment means public betterment. In the *World's Work* for June, 1920, Mr. Hawthorne Daniel, in an article entitled "Better Hospitals for Everybody," said: "Is the best service that the medical profession can give too good for the humblest patient anywhere on this continent? For years the doctors of America have contended that it is not. They have asked the question among themselves, implying a desire to provide the right to be well to every man, woman, and child. They have asked it at their meetings, and in asking it have implied a desire to provide that 'best service' to every patient. The question always won applause. But it was not until 1913 that this somewhat hazy desire formulated itself into a definite plan of action. That plan, though unheralded through these seven years, is today so far effective that it amounts to a revolution for better service to patients among the more than seven thousand hospitals in the United States and Canada. . . . It places more responsibility on the trustees of the hospitals; attending physicians and surgeons are checked up by a quiet board of inquiry, that can detect any careless work that may be done, and is in a position to place the blame for it at the door of the man who is to blame; the buying and selling of patients by the splitting of fees is deprecated; all through the hospital world a really remarkable change is taking place, and from it is resulting greatly improved service for the patient.

"The primary purpose of nearly all hospitals is the care of the sick or injured. This means that, as a matter of policy, the hospital seeks to render, to each patient admitted, the most efficient care known to the staff of the hospital. Hospitals and doctors accept this interpretation, otherwise the hospital would be merely a boarding-house for the sick or injured. Further, the trustees of the hospital, having accepted this policy, are responsible for the administration of the policy; and the people of the community have a right not only to assurance that the policy is carried out, but also to the facts upon which such assurance is based. It is only upon such a relationship of mutual confidence that the hospital may reasonably ask the good will and support of the community. Again, upon such a relationship rests the ultimate success of the hospital. The 'minimum standard' is designed to foster this fundamental relationship."

The year 1920, then, has been a memorable one for hospital standardization. Probably in no preceding year has there been such widespread interest displayed. The general acceptance of the program has been most stimulating to all concerned.

A bright future is assured. The campaign for hospital betterment has acquired momentum which cannot be stayed. Every day additional hospitals are organizing their staffs for regular meetings, installing case record systems, and improving laboratory facilities. The small hospitals as well as the large, are adopting these measures, partly because they are practical, but above all because they mean better service for the sick.

SANDY'S PRECAUTIONS

Surgeon—"The operation must be performed immediately."

Sandy (kirk elder)—"Weel, send for a minister at yince, then."

Surgeon—"Oh, the operation's not serious enough for such anxiety."

Sandy—"I'm no parteeklarly anxious; but if I'm to be opened, I'll be opened wi' prayer."—*London Tid-Bits.*

WHAT THE HOSPITAL LIBRARY AND SERVICE BUREAU DID IN 1920

By DONELDA R. HAMLIN, Director, Chicago

THE Hospital Library and Service Bureau is still so new that a few words as to the history of its organization may be appropriate. It is under the direction, and constitutes an important part of the American Conference on Hospital Service, an association organized in 1919 for the betterment of hospital conditions in the United States and Canada. The principal work of the Conference during the past year was the organization of the Library and Service Bureau, which was established in its present headquarters at 22 East Ontario Street, Chicago, in September, 1920.

While the Hospital Library and Service Bureau is under the direct guidance of the Conference, its immediate establishment was made possible by the financial support of national hospital, nursing, medical, and social service organizations, aided by the Rockefeller Foundation. Among the organizations which have so far contributed to the support of the Library are: the National Catholic Welfare Council, the American Association of Hospital Social Workers, the American Association of Industrial Physicians and Surgeons, the American Medical Association, the American Hospital Association, and The Modern Hospital Publishing Company. The Catholic Hospital Association and the American Dietetic Association have also pledged their support. While it should be understood that the Library and Service Bureau serves, gratuitously, any individual having a legitimate interest in any phase of the work which comes within its scope, it is felt that public recognition should here be given to the organizations which have aided in the establishment of this important service.

Outline of Material to Be Collected

Perhaps the most important feature of the work done by the Hospital Library and Service Bureau during the first few months of its existence has been the Outline of Material to Be Collected. This outline, which has been printed in the various hospital, public health, nursing, and allied journals, gives a definite idea of the type of material which will eventually be available for reference purposes.* A copy of this outline will also be sent to the superintendent of each hospital, sanatorium, and allied institution in the United States and Canada, so that the personnel of these institutions may have definite knowledge of the material being collected for their use. Additional material suited to individual needs will also be collected upon request.

The policy adopted by the library committee precludes the giving of advice by the personnel of the library; it being the purpose of the organization to collect and disseminate information from which the persons using the library may make their own deductions.

Building committees and committees organized for the promotion of hospital projects will be especially interested in a list of approximately sixteen hundred architects serving the institutional field, which has recently been compiled. This list has been made in duplicate, one copy being arranged alphabetically, the other geographically, to facilitate locating the address of any given architect, or information regarding the architects in any given community. The card list also contains information in regard to the various institutions served by each of these architects. This information is now being verified and will soon be available for general reference purposes.

Floor plans of hospitals, sanatoriums, and nurses' homes, with photographs of exteriors and interiors, are now being received for the permanent exhibit of plans which will be maintained at the library. From this exhibit special exhibits will be prepared for national association meetings, from time to time.

Information in regard to national and state associations dealing with the various phases of hospital, public health, child welfare, social service, nursing, dietetic, medical, and surgical work is now available. This information includes the purpose and scope of the associations, the personnel, time and place of meeting, requirements for admission, reports and transactions.

A card file is now being made of all institutions giving special courses in social service, public health, anesthesia, nursing, occupational therapy, physiotherapy, laboratory technic, and dietetics.

While every effort is being made to collect, as rapidly as possible, material for the Library and Service Bureau, it will, of course, be some time before all of the material contained in the outline is assembled. Despite this fact, inquiries are invited on any subject of interest to the hospital field. If the material desired is not immediately available, every effort will be made to secure it as promptly as possible.

*This outline was printed in THE MODERN HOSPITAL, January, 1921, p. 36.

1920 HOSPITAL ACTIVITIES OF THE ARMY, NAVY, AND PUBLIC HEALTH SERVICE

DIVISION OF MARINE HOSPITALS AND RELIEF

(United States Public Health Service.)

THE largest division of the Public Health Service during the year 1920 was the Division of Marine Hospitals and Relief. A much greater responsibility was placed upon this department of the work, and a great deal of expansion was made necessary by the provisions of Public Act 326 of the Sixty-fifth Congress. By this Act the Public Health Service became an agency through which the War Risk Insurance Bureau and the Federal Board for Vocational Education might obtain medical aid for their beneficiaries. This necessitated close cooperation between the three agencies, with inevitable delays at first. Now adjustments have been made, and the delays have been greatly decreased.

The expansion of the work of the Service has necessitated certain changes in organization. The division is now organized in fourteen sections, each one an independent unit devoted to a particular feature of the work, operating under the chief of the Division and coordinated through an executive staff. New field administrative agencies have been found necessary in order that immediate contact with ex-service men and women might be made. For this reason district supervision was created.

The Division of Marine Hospitals and Relief, at the time of the passage of public act 326, was operating some twenty-two marine hospitals with a total bed capacity of about 1,500. It now operates over fifty hospitals with a total bed capacity of more than 12,500, and the number is being steadily increased.

The question of supplying hospital facilities has been a very difficult one in many respects. The Public Health Service has expanded what facilities it had so far as appropriations would permit, and has secured additional facilities as rapidly as possible, either by the transfer from the Army or Navy, or by the lease of buildings which could be used temporarily at least. One great complicating factor has been the impossibility of determining with any certainty the number of patients needing hospitalization. Thus the data as well as the time for making mature plans were lacking.

In spite of the many difficulties and magnitude of the work involved, the Hospital Division has successfully carried on its activities through 1920. From all available records it would seem that the work will go on expanding for some time to come, and the Division hopes to be able to give even better service in the coming year.

HOSPITAL DIVISION OF THE ARMY

The Hospital Division of the Army has the direct administration of those hospitals under War Department control, as well as advisory duties in connection with all other hospitals under the control of territorial departments. The work is divided into four sections: construction, administration, census, and statistics. The names indicate the key-note of the functions of each, although of course many activities are allied with them.

On June 30, 1919, there were 40,796 sick in the larger hospitals alone; in the next year, not considering the patients sent from smaller hospitals, 12,000 American Expeditionary Force cases were added, making 52,796 patients treated during the year. On June 30, 1920, there remained only 5,082 sick in these hospitals, only 2,000 of which were American Expeditionary Force cases. Therefore, approximately 50,000 cases received definite treatment and were released from military control. The cases treated this year though not as numerous as in the preceding year were of a graver and more chronic character.

HOSPITAL DIVISION OF THE NAVY

The hospitals of the Navy so far as construction, material, supplies, and equipment are concerned are in good condition. Many new forms of activity such as hydrotherapy, etc., the importance of which was brought out by the war, are being pursued. All such work has been hampered, however, by the shortage of medical officers, nurses, and hospital corpsmen. During the past year there were 2,526 admissions of all types of cases to the hospitals of the Navy.

The problem of economically and wisely returning to a pre-war basis has been before the Navy Hospital Division during the past year, and the policy determined upon has been readjustment, not demolition or spoliation. In some cases buildings and equipment have been turned over to the Public Health Service, some have been placed out of commission (Navy base hospitals abroad, except No. 1), and some buildings are being utilized for the present as storehouses. New construction has been undertaken to some extent to care for permanent needs.

HOSPITAL BUILDING ACTIVITIES IN 1920 AND 1921

By CARL A. ERIKSON, of Richard E. Schmidt, Garden and Martin, Architects, Chicago, Ill.

A REVIEW of the hospital building activities of 1920, made at this time, may give the same distorted picture that the worm gets of his world—the mountain may be hidden by a molehill. And yet it is meet that we should examine the preceding events at intervals and try to see their tendencies. Those events of the past year that we consider significant may seem microscopic to the fabled New Zealander who will some day excavate the ruins of New York. And to him the important event of 1920 may be an idea just germinating, but now hidden in the maelstrom of material activity. With his broader perspective the Islander will appreciate more readily than we the past year's dependence on the previous years, its relation to the future, and its true significance.

Those hospitals that are financially in a position to do so, should start their building operations this spring or early summer.

Building costs will probably sink somewhat lower than they are now, but by midsummer the accumulated demand will have stiffened prices, and as the enormous building demand gains headway, prices will rise considerably. The foresighted hospital authorities will have their plans and specifications all ready to take advantage of these lower costs.

Even those without funds in sight should formulate their needs, consult their architects, and be all prepared so that when funds are available no time will be lost.

The planning and construction of a number of large hospitals as a result of the greatly enlarged appropriations for research and medical education by state legislatures and the Rockefeller Foundation, is unquestionably the most important item of the year. At Ann Arbor, the University of Michigan Hospital is well under way; at Chicago, the foundations for the University of Illinois Hospitals are in and the superstructure is well under way; at Madison, the architects are developing plans for the University of Wisconsin Hospital. The cost of the initial buildings for these is over $7,000,000, and other state universities have hospital projects under way which would materially increase this total. This is a most valuable evidence of the taxpayers' interest in medicine, and of equal importance is the fact that these hospitals are mainly intended for correctional surgery (orthopedic), and preventive medicine (research and education), particularly in psychiatry. These states have definitely entered a field in which private endeavor has proven woefully inadequate. This is but the beginning, for we may confidently expect these hospitals to increase in size and number rapidly. State maintenance, however, is the far more important phase. It has been estimated that the cost of operating a state university hospital of 400 beds and its research division is equivalent to an endowment of $7,500,000.

The Rockefeller Foundation has continued and expanded its interest in a similar work. Medical schools in the United States and Canada have received large sums for the expansion of their educational work and the enlargement of their clinical facilities. Very properly, the development has been slow and there is yet little evidence of an increase in facilities.

Emory University at Atlanta has broken ground for its large hospital. Johns Hopkins at Baltimore has announced a very comprehensive building program, with a large allotment for the increase in hospital facilities. The University of Chicago Hospital is still being studied.

A project of great interest started this year, and one that will probably be more closely studied than any other, is the Fifth Avenue Hospital, in New York City. It is proposed in this hospital to house all patients in private rooms, to centralize the supplies in the basement, and provide only graduate nursing. These things have been advocated for years, but this is the first attempt to carry them out on a large scale. The hospital is intended for the poor "white collar" class, cultured and refined, but with such a small margin left above the subsistence level that sickness generally forces them into the public wards of our hospitals. It is to be hoped that this hospital will conclusively demonstrate that the quiet and comfort of a private room does not increase the operating costs prohibitively. We could then offer this vast class of the underpaid a comfort which is due them and which they must have, if we are not to throw psychological monkey wrenches into their machinery of recovery.

Total Volume of Building Not Surprising

Despite these larger projects, the total volume of new institutional building is not surprising. F. W. Dodge & Co. report that contracts amounting to $46,000,000 were awarded during 1920 in the twenty-five Northeastern states (east of the Missouri and north of the Ohio). As this total

includes contracts for homes and institutions of every kind, it is impossible to make an estimate of the total of hospitals alone. At $1,500 per patient's bed (undoubtedly a low average), the increase would be 30,000 patients' beds. To estimate whether this increase is sufficient for the replacement, fire and other losses, and the normal increase in population, a body of statistics not now available would be necessary. It seems quite evident, however, that this does little more than care for the replacement and the increase of population. These statistics clearly indicate that the hospital development, retarded in 1916, '17, '18, and early '19, is still unsatisfied. That recent bug-bear of the manufacturer, overproduction, is not to be feared in hospital building activities for many years.

1920 a Very Bad Year for Building

The past year was a most trying one in the building industry. It opened on the wave of activity begun in the middle of 1918 and rose continuously until during the month of April contracts to the amount of $334,000,000 were awarded in the twenty-five Northeastern states, (Dodge & Co. statistics). The promise of the first half of the year was not borne out, for building conditions were intolerable. Not only were materials high and labor inefficient, but both were almost unobtainable. Strikes and delays were frequent. It was impossible to obtain any dependable figures as to what the cost of completed buildings would be, or when the buildings could be finished, (the building industry was not unique in this respect). By October, this condition had righted itself, but everyone was convinced that building would probably follow other commodities down, just as it followed them up. This, coupled with the scarcity of mortgage money, resulted in a very abrupt decline in contracts awarded. The total contracts awarded for 1920 (in the twenty-five Northeastern states) was practically the same as that of 1919, but probably represented 25 per cent less building.

The hospital has a radically different type of financial operation from other types of buildings. The manufacturer, the speculator, or the home builder may start his building with but a very small portion of the total required; the hospital, however, must have a very large part (if not all) of its funds in hand before contracts for building construction are let. These funds are usually not forthcoming overnight but an arduous campaign of education is necessary. The most successful of these campaigns for funds were those of the last part of 1919 and the first of 1920. It is not surprising, then, to find that the peak of hospital building contracts was not reached until August.

Economy and Comfort Aims of 1921

The next year will continue the tendencies of the past year. Attention will be given to eliminating labor, both nurses and help, by so arranging the building that they are reduced to a minimum. Fortunately, too, every plan and every detail of the hospital will be studied to insure true economy—that which results in lower operating costs. A further increase of the facilities for the study of disease will be evident. The comfort of the patient will probably receive more emphasis than in the past. We may expect our 1921 hospitals rigidly to eliminate the luxuries of expensive marbles, etc., and substitute the luxuries of better and more comfortable care of the patients and more scientific facilities for diagnosis and treatment.

It is hoped that the state and medical school

The Salvation Army Hospital and Home at Greenville, S. C., is an institution that has been built for the treating of women and children in the district of the Southeast, comprising the states of North Carolina, South Carolina, Florida and Georgia. The new hospital is modern in every particular, the construction of the main building being of reinforced concrete and hollow tile, fire proof throughout, and the latest types of operating, refrigerating, sterilizing, kitchen, and laundry equipment being provided. Beacham and LeGrand, Greenville, S. C., architects.

St. Elizabeth's Mercy Hospital, Hutchinson, Kansas, which was opened on April 14, 1920, is conducted by The Sisters of Mercy. It is thoroughly equipped, having two operating rooms, x-ray, and laboratory departments, eye, ear, nose and throat room, and an obstetrical department.

programs for their hospitals will be materially accelerated during the coming year. It is earnestly hoped that such health surveys as the recent Cleveland survey will be instituted, in order that a large body of data may be available to indicate the needs of the community.

The demand for increased hospital capacity and facilities, so insistent in the past few years, will be intensified this year. The acute housing shortage has not been alleviated and this condition adds very materially to the hospital burden. Not only is the frequent overcrowding an important contributing factor in the causation of disease among the poor, but the smaller and less convenient quarters occupied by all classes necessitates resort to the hospital during illness. The doctors, too, are more insistent that their patients use the hospital and, at the same time, that the hospitals provide better facilities for diagnosis and treatment.

Need for Free Beds Will Be Increased

The present period of unemployment and reduction of wages will again increase the demand for low priced or free beds; however, the advantages of the small private room have been so thoroughly demonstrated that we shall find a much larger proportion of our new hospitals devoted to small private rooms than has been customary.

The lower operating costs now prevalent will be reflected in greater building activity, for no board of directors can face with equanimity an increased capacity and a consequent increased deficit. Help is more plentiful and efficient, the pupils in the nurses' training schools are increasing in numbers. With a shortage of both of these to care for the patients, it was idle to consider increasing the capacity of the hospital. Many projects dormant for these reasons will probably be revived this year. When funds are not in hand these projects will be slow in starting, for the swollen incomes of previous years have subsided most painfully. We need not expect any great amount of money for new hospitals while the business world is so busily nursing its grievances against the unexpected deflation.

Those hospitals that are financially in a position to do so, should start their building operations this spring or early summer. Building costs will probably sink somewhat lower than they are now, but by midsummer the accumulated demand will have stiffened prices and as the enormous building demand gains headway, prices will rise considerably. The foresighted hospital authorities will have their plans and specifications all ready to take advantage of these lower costs. Even those without funds in sight should formulate their needs, and consult their architects, so that when funds are available no time will be lost.

DISCOVER NEW METHOD OF MEASURING UNDERNOURISHMENT

Professor Clemens von Pirquet, head of the department of the diseases of children in the University of Vienna, has developed a new system of measuring the undernourishment of children with scientific accuracy. The system is based on the relation of the length of the body in a sitting posture to its weight. Taking 100 as the ratio in the normal adult the average Pelidisi (the name given to the new system) of the normally well nourished child is ninety-four. Children under ninety require immediate relief, and seventy-six, the lowest plane, is almost starvation. The American Relief Administration European Children's Fund, which has been feeding children in large numbers in Vienna, has been giving a free meal a day to practically all children under Pelidisi ninety-three, in other provinces the feeding has been confined mostly to children under ninety-one. Upon examination of 50,324 children, it was found that 30,817 or more than three-fifths had a under Pelidisi ninety-three. Mr. Hoover, the chairman of the American Relief Administration, hopes to continue feeding 300,000 children during this winter. The complete program in Europe calls for the feeding of 2,500,000 children, exclusive of Germany, where the American Quakers estimate that 1,000,000 must have food from America if they are to live through the winter.

PROMINENT FIGURES IN THE HOSPITAL FIELD

Dr. Walter B. James, President of The National Committee for Mental Hygiene, New York City.

Mrs. Mary de Garmo Bryan, President of the American Dietetic Association, Jersey City, N. J.

Dr. Herbert J. Hall, President of the National Society for the Promotion of Occupational Therapy, Marblehead, Mass.

Dr. Lawrenson Brown, President of The American Sanatorium Association, Saranac Lake, N. Y.

Dr. Gerald B. Webb, President of the National Tuberculosis Association, Colorado Springs, Colo.

HOSPITAL ADMINISTRATION IN 1920

By S. S. GOLDWATER, M.D., Director, Mount Sinai Hospital, New York City

The year 1920, in hospital administration, might be characterized as a year of much thinking but little action. The high cost of materials, supplies, and personal service made it necessary in many cases to postpone building and the installation of better equipment in existing institutions.

But certain tendencies and beginnings of movements have appeared which look to the future. The most important of these is the organization of a committee under the Rockefeller Foundation, to report upon the need and practicability of inaugurating a course of training for hospital executives. The survey which the committee will make undoubtedly will be an important contribution to hospital progress.

PROGRESS in hospital administration has been distinctly retarded during the past year by the high cost of materials, supplies, and personal service. In many cases plans for the installation of better equipment and for more intensive service of various kinds have been put off indefinitely. The history of the year in hospital administration might be summed up in the statement that 1920 has been a year of much thinking, but of little definite achievement. And yet certain tendencies have become manifest, and significant beginnings of movements that look to the future have been made.

In the last named category the most striking event of the year is the organization of a committee, under the auspices of the Rockefeller Foundation, to report upon the need and practicability of inaugurating a course of training for hospital executives. Some time will no doubt elapse before this committee is able to render its report, but the survey which the committee is expected to undertake will in itself be a contribution of importance to hospital progress. We know what happened in medical education when the methods of the medical schools of the country were subjected to careful scrutiny. Those who are active in the hospital field realize that the shortcomings of hospitals are no less glaring than those which were found in the medical schools just before the reform movement was inaugurated. One consequence of the investigation of medical education was the elimination of unfit schools. This result is not likely to be paralleled in the hospital field; the public interest does not demand the elimination of unfit hospitals, but their preparation for efficient service.

How Should Hospitals Raise Money?

If financial stringency has blocked the way to hospital improvement, what efforts have the hospitals made to obtain ampler support? Such efforts may be traced along two lines: first, in the attempt to obtain the support of communities by means of whirlwind campaigns, or through the agency of financial secretaries; second, in the raising of patients' payments.

The whirlwind campaign for money seems to have become an established national custom, affecting not only hospitals, but philanthropic enterprises of every description. Large organizations have been created for the exclusive purpose of directing such campaigns, and these organizations have energetically striven to perfect a get-rich-quick campaign technic. It would seem, however, that the ingenuity of the campaign manager has been well nigh exhausted, for communities are no longer surprised or emotionally aroused by spectacular publicity methods. Under these circumstances, hospitals have begun to turn away from the whirlwind campaign to the financial secretary, who is expected to serve as the mainspring of a continuous campaign for funds. One of the oldest hospitals in the country, after considering all the available methods of raising funds, determined recently upon the employment of a permanent financial secretary at a salary approximating that of the average high grade hospital superintendent.

Trustees Could Make Better Appeal

The question may well be raised whether either the whirlwind campaign or the financial secretary is the best means of raising hospital funds. Both methods presuppose inability or unwillingness on the part of the hospital trustees themselves to go out and get the money that the hospital needs. Hospital trustees seem less and less disposed to raise money by their personal efforts. Indeed, the typical trustee of the day is the successful business man, whose attitude toward the hospital resembles that of the corporation director toward a business enterprise.

The growing complexity of hospital administration is no doubt responsible in part for the gradual withdrawal of the hospital trustee from the minute affairs of the hospital, and there is much to be said in favor of the shifting of responsibility for actual administration to trained

or, at any rate, experienced executives. In throwing off the burden of fund raising, however, the trustee is doing something quite different. The financial secretary or the whirlwind campaign manager may have a better command of the psychological technique of fund raising than the trustee, but he is not in a position to make the strong personal appeal that can be made by the trustee, who reinforces his appeal to personal friends, to business associates, and to citizens who have a sense of civic responsibility, by the example of his own generosity. The paid campaign director may be and often is suspected of working for himself; the hospital trustee is the better spokesman for a philanthropic enterprise, for his motives are beyond question. In spite of these considerations, it seems probable that hospital managers will in the future progressively transfer to paid agents the function of raising funds.

This attractive building, which seems to have successfully escaped the institutional aspect, is the Fort Sanders Hospital, which was built as a result of the co-operative effort of nine of the physicians of Knoxville, Tenn. Wishing to furnish the city with a private hospital of the highest class, the physicians built this institution, which has a capacity of sixty-five beds, is equipped with modern appliances, and is situated on the highest point in Knoxville. Manley and Young, Knoxville, Tenn., architects.

Readjustment of Charges Made

The financial stringency of the year has been relieved in part by a readjustment of hospital charges, following a more rigid study of hospital costs. Such studies revealed in many instances private room rates that were far below the actual cost of maintenance. Ward rates have also been raised to correspond to the higher cost of maintenance, and such increases have yielded unexpectedly fine results, because of the larger proportion of voluntary payments on the part of ward patients. During the period of national prosperity, the number of paying patients in the public wards of hospitals has in many instances more than doubled. This showing is decidedly creditable to the people, and tends to disprove the old theory that the great mass of the people deliberately abuse the hospitals, by cunningly and meanly seeking to obtain free treatment for which they can afford to pay.

While complete figures are not available, it seems that a larger percentage of the hospitals of the country have "earned" their support during 1920 than during any previous year. Nevertheless, hospitals have postponed new construction and equipment, first, because of the high prices prevailing, and the belief that prices would eventually be reduced; and second, because it has been quite generally assumed that during the inevitable period of business depression and unemployment payments by patients would be materially reduced. The hospitals anticipated a period during which they expected to be burdened with budgets swollen to unprecedented proportions, while hospital earnings were rapidly falling away.

Compensation Charges Equalized

The subject of hospital earnings can hardly be covered without a word about compensation cases. The rates of payment that hospitals originally accepted for the treatment of compensation cases were considerably less than actual maintenance costs. This was an illogical situation which the hospitals have made an effort during the past year to correct. The principle is now recognized that in compensation cases the hospital is justified in charging a rate which will cover, in addition to current expense, the item of interest on plant cost. In other words, the basis of calculation in compensation cases should be precisely the same as in the case of private patients. Anything less than this is equivalent to a free gift by the hospitals to the insurance companies, through which industry operates in the compensation field.

Single Room Plan Impracticable

A system of hospital planning which, if generally adopted, would greatly increase the cost of future hospital maintenance, has been the subject of considerable discussion during the year. This system contemplates the abandonment of open or many-bedded wards and the provision of single rooms for all hospital patients, of whatever social class. It is conceded by all that the cost of construction would thus be enhanced, but the argument has been advanced that the operating cost of hospitals thus constructed would be less than that of hospitals containing open wards. Indi-

vidual rooms, so the argument runs, can be closed up when not in use, and need not at such times be heated or cleaned. This claim will not bear close analysis; certainly it has no validity at all in the case of hospitals which are constantly under pressure; and the experience of most superintendents does not support the view that a private room which is unoccupied can be neglected for weeks at a time and yet kept in condition for immediate use on demand.

Those who question the wisdom of providing individual rooms for all "ward" patients point out that the cost of construction is very much greater; that for equal nursing service the cost of nursing is bound to be considerably greater; that if the nursing force in such a hospital is not greatly augmented, patients will suffer; that the system will cause an increase of nearly 100 per cent in housekeeping costs. There is also the very serious question of the practicability of obtaining the increased nursing and domestic personnel that the new scheme demands. Besides all this, it is pointed out that while the old-fashioned open ward, without "quiet" rooms, is indefensible (and indeed has today not a single champion), a ward unit of whose total capacity one-third or two-fifths consists of beds occupying side rooms or wards holding from one to four beds each, is amply able to meet any reasonable need that arises in the management of either a medical or a surgical service. Many an untutored patient, not so sick as to require constant attention, and not so circumstanced as to command the constant attendance and company of friends, complains of lonesomeness, if left in bed in a separate room. In such cases, "misery loves company," and the "quiet" room is a curse, not a boon. It is not likely, therefore, that the country will adopt generally the individual room plan; nor, on the other hand, is it probable that hospitals will ever go back to the brutal method of placing in a large open ward the delirious, the dying, or the acutely sick patient, or indeed any patient who really requires privacy or special environmental conditions. In this matter, as in the affairs of life generally, extremes should be avoided; in the case under consideration the middle course promises adequate means of treatment, due consideration for every patient, and moderate expenditure for both construction and maintenance.

Municipal Hospitals Needed

During the past year a number of communities have formally or informally investigated the relative advantages of municipal and private hospitals. One city of approximately half a million, which has hitherto assigned to subsidized private hospitals all patients who had a claim on the city for support, has reached the conclusion that in order to avoid abuses, the municipality must erect a hospital of its own. The public authorities of this city believe that the private hospitals to which city cases have been assigned have for financial reasons retained such cases much longer than was necessary. It is hard to believe that such a practice is widespread, though the temptation to resort to questionable expedients was unusually strong during the past year.

A sound reason for the establishment of municipal hospitals in the larger cities, side by side with private hospitals, is the fact that private hospitals are not commonly disposed to receive all classes of needy patients, but prefer to limit their work to the treatment of the acutely sick and of maternity cases, and are indeed so constituted that their best contribution to the public welfare can be made in this field. But when the private hospitals have done their accustomed work, there remains a residuum of the sick which the community cannot neglect; hence the need of the municipal hospital. While the private hospital is in a position to reject patients whom it prefers not to treat, the municipal hospital must be prepared to meet the whole demand of the community as it arises. It is doubtful whether the day will ever come when privately controlled hospitals will assume the task of caring for all of the medical needs of the community. An obstacle to the assumption of this task exists in the fact that the money contributed to private hospitals

The Jackson Park Hospital is one of Chicago's contributions to the new hospital quota of 1920. Eric E. Hall, architect, Chicago.

is often given under conditions which determine in advance, and without regard to ascertained community needs, the character of the work which the hospital may do.

Postgraduate Teaching Important

Although there has been much discussion since the war of the need of postgraduate teaching, and of the part that hospitals should play in such teaching, no effective hospital organization for postgraduate teaching has been effected in any large community; in several localities associations for the promotion of postgraduate teaching have been formed, but the efforts of such organizations have not yet been particularly fruitful. Hospitals know that clinical training is indispensable to the recent graduate, but they do not yet appear to realize that it is impossible to maintain high standards of medical treatment in a country in which the majority of practicing physicians are cut off permanently from all hospital contact. Any appeal that is made to a well equipped hospital to utilize its facilities for postgraduate medical teaching is entitled to serious consideration.

Although the value of the clinical training of the intern is recognized, not only by hospitals, but by the public, and even by the intern himself, nevertheless, in consequence of the war and of certain other conditions, the relation between the hospital and the intern has undergone a change which seems to imply the contrary. At the beginning of the century the number of desirable hospital places was small, the number of medical graduates relatively large. The situation is now reversed; graduates are fewer than they were twenty years ago, hospital beds are much more numerous, and hospital needs, (owing to the gradual development of more intensive methods of medical investigation and treatment), are incalculably greater. Under these circumstances, the hospital in many cases is obliged to seek the intern, whereas formerly it was the intern who sought the hospital. One effect of this changed relation was observed some years ago when cash allowances to interns began to make their appearance. The payment of salaries, or the granting of bonuses or cash allowances to interns and residents, has now become a widespread practice.

Require "Intern Year"

Through the adoption of state laws, which compel the medical student to spend a year in an accredited hospital before applying for his license to practice, many hospitals have been brought into closer relations with the educational authorities. Where the system of the legalized "intern year" prevails, close supervision of hospital work naturally follows, and standards are set up which hospitals are obliged to follow if they desire to become part of the established system. The "intern year" has now become a legal requirement in more than a dozen states, and the enactment of similar legislation in additional states is predicted.

The fact that many of the best medical schools in the country have opened their doors to women students is the clearest possible indication that women will play a large part in the future activities of hospitals. Hospitals which decline to receive women on their staffs are now on the defensive, and their manner, when explaining their inability or unwillingness to accept women as interns on the same basis as men, has become distinctly apologetic. The reason that is most commonly advanced by these hospitals is that suitable housing accommodations have not been provided for them. In view of the unmistakable trend, it would be a mistake today for any hospital to plan intern quarters for future use, in such a way as to impede the admission of women interns.

A demand has been felt in many places, during the past year, for improved methods in the choice of hospital staffs. Various possible methods of grading applicants have been considered. This is a healthy sign, indicating a growing sense of responsibility on the part of the trustees who hold the appointing power.

Should Maintain Hospital Wages

During the past five years there has been an increase in hospital wages corresponding to the increased cost of living. Reductions in the cost of commodities will undoubtedly be followed by a reduction of wages in factories, stores, offices, hotels, and private households. May we expect a similar reduction in hospitals? Probably not, for the reason that hospital wages before the war were far below those prevailing in industry and domestic service. The probability is that the relative position of the hospital employee will be improved during the period of general readjustment. The wage scale that prevailed in most hospitals before the war was morally indefensible. It is to be hoped that instead of attempting to follow in the footsteps of industrial enterprises that have recently reduced wages, hospitals will make an effort to maintain, as a rule, the wage scale established during the war. In order to do this, hospitals must, of course, have the moral and financial support of the community. Let us hope that this support will be ungrudgingly given when the actual conditions are understood.

The five-year interruption in medical training which has occurred in Europe will affect the supply of physicians in the next generation. This makes the instruction of an adequate number in the next few years very essential.

SIGNIFICANT FACTS IN RECENT DISPENSARY DEVELOPMENT

By JOHN E. RANSOM, Superintendent, Michael Reese Dispensary, Chicago, Ill.

Dispensary or clinic development in the past few years has gone forward in leaps and bounds. Dispensaries have been established in a constantly increasing number of hospitals, special clinics have been recognized as essential to the best hospital work, as well as to public health movements, such as the anti-tuberculosis campaign, the social and mental hygiene, and child welfare movements. The development of clinics as part of public health movements is especially significant in that these newer clinics set up standards by which such work can be measured.

Another indication of the increased interest in dispensaries is the various studies made of the subject during the last year.

HARDLY any other phase of institutional medicine on the one hand, or of public health on the other, has experienced such development in recent years as has the dispensary or clinic. Some aspects of this development worthy of particular comment are:

(a) The establishment of out-patient departments in hospitals not heretofore having such service.

(b) The rehabilitation of existing out-patient departments.

(c) The creation of many new special clinics in general dispensaries.

(d) The development of dispensaries and clinics as an essential part of such public health movements as the anti-tuberculosis campaign, the social hygiene movement, the mental hygiene movement, and the campaign for the conservation of maternal and infant life and health.

(e) The development of clinics as a part of the machinery of state boards of health as effective agents for disease prevention and health promotion.

(f) The development of health centers.

(g) Industrial dispensaries.

(h) Evening clinics and pay clinics.

(i) Consultation and group diagnostic clinics.

(j) The development of medical social service.

In general, these developments have resulted from the recognition of three facts. First, that if medical service is to be adequate in relation to community need it must be organized. Second, that the most fruitful efforts directed toward the prevention of certain infectious diseases lies in the treatment of infected individuals. And third, that the dispensary or clinic can be made an efficient and economical organization of medical resources for the combating of disease. As these ideas gain impetus, there is dawning a new day in out-patient work. Time was, and in many instances still is, when the dispensary was housed in a cellar; equipped, if at all, with cast-off and worn-out articles from the hospital, and manned by a staff which, to say the most charitable thing about it, did not recognize dispensary service as efficient medical service. Too frequently the dispensary has warranted the description, "a poor place for doing poor medical work for poor people." Tomorrow the dispensary bids fair to become the front door of the hospital. More and more of the hospital's diagnostic work will be done in its out-patient department.

Hospitals, in increasing numbers, are coming to recognize that an out-patient department is an essential part of their organization. It is so apparent as to need only mention here that without dispensary facilities a hospital must use comparatively expensive ward facilities for treating patients who are not essentially bed patients, and must keep in the hospital other patients who might be discharged to the out-patient department if there were one.

The development of hospital social service has had no small part in bringing hospitals to this point of view. It is the social worker who more than any other member of the hospital family becomes acquainted with medical needs of persons who are not yet hospital patients, and of the hospital patient after his discharge.

Each year we see old hospitals adding out-patient departments to their activities, and in many a new hospital careful attention is given to the organization, housing, and equipment of this important part of the institution's work.

Special Clinics

The major divisions of medicine and surgery long ago found their counterparts in dispensary clinics. With the development of specialization these major departments are being supplemented by special clinics of much more limited scope and in which much more intensive diagnostic and therapeutic work can be done. Among these special clinics the ones most frequently found are those for the treatment of syphilis, tuberculosis,

heart disease, gastro-intestinal diseases, diseases of metabolism, and infant feeding problems. The establishment of these special clinics is helping dispensaries solve some of their most serious problems. To secure adequate treatment for patients and to make dispensary work attractive to good physicians are the two most difficult tasks confronting any dispensary. We are all too familiar with the kaleidoscopic picture of the busy physician rushing to his crowded clinic, "running off" in a hurried hour or two a score or more of patients with ailments ranging in seriousness from carcinoma to constipation. Under such conditions he can give or gain but little. Because of the opportunity for the study of diseases problems which these special clinics afford, physicians of ability are finding a new interest in dispensary work. Because of the better medical service and because in most dispensaries these clinics have the services of special social workers, nurses, and dietitians, as the nature of the work may indicate, greatly improved service for patients is obtainable. Present indications point to the development of increasing numbers of these special clinics and through them to increased efficiency in out-patient work.

Place in Public Health Movements

The greatest development of out-patient service in recent years has been in relation to several public health movements. Anti-tuberculosis campaign, social hygiene, mental hygiene, infant welfare—all phrases of comparatively recent coinage —represent organized effort directed toward the solution of some of our most common and most socially significant disease problems. Some of these movements have developed various methods of attacking the several phases of their special problems. All have found the dispensary an essential and effective weapon.

As already stated, with some diseases the rendering of infectious individuals non-infectious is the most productive preventive measure. However, the clinic has other significant values than serving as a treatment station. It becomes a meeting place of those who need and those who can give instruction, advice, and inspiration, in relation to health problems.

The anti-tuberculosis movement was first in the field as a nation-wide movement for disease prevention. Its development has in a large measure been determined by its ability to secure the establishment of sanatoriums and dispensaries as centers of diagnosis, treatment, and education. The directory of the National Tuberculosis Association published in 1920 lists of 493 tuberculosis dispensaries and clinics.

The campaign for venereal disease control is another public health movement making wide use of the dispensary. Recognition of adequate treatment facilities as the biggest factor in prevention led the United States Public Health Service to make the establishment and encouragement of clinics and dispensaries an essential part of its program. A recent bulletin of the Public Health Service gives a list of 526 such institutions in which free treatment for venereal disease may be obtained.

Clinic in State Hospitals for the Insane

Inquiry as to the out-patient activities of public hospitals for the insane brings to light a very interesting situation. One might make a list of these hospitals arranged in the ascending order of their comprehension of their function as a part of a program for the promotion of mental health. At the bottom of the list could be placed a few hospitals which make and contemplate making no provision at all for out-patient service, social service, parole, after-care, or any other extra-institutional activities. Others are just beginning to extend their interest to paroled patients, keeping in touch with them through correspondence with their families or by occasional visits of parole agents. Others have social service departments which work with patients both before and after discharge, helping them to make the difficult adjustments which face a person who has been mentally ill. Still others have established out-patient clinics both at the hospital and in communities served by the hospital. These clinics are centers for diagnosis and treatment of mentally ill persons who may be treated outside of institutions, and for the after-care of patients who have been discharged or paroled from the hospital. The list of out-patient clinics for nervous and mental diseases in the United States, published last year by the National Committee for Mental Hygiene, contains the names of 126 clinics maintained by public hospitals for the insane, and institutions for the feeble-minded and epileptic. Six are listed as conducted by mental hygiene associations.

Another public health problem which is being brought more and more frequently to public attention is that of safeguarding maternity. So inadequate and archaic are our obstetrical facilities that childbirth and conditions incident thereto stand second only to tuberculosis as a cause of death among women of childbearing age. The development of prenatal clinics, and of clean obstetrics in hospitals and in patients' homes, have in certain communities reduced this death rate to less than one-tenth of one per cent. This movement is growing especially in the large cities. Upwards of a hundred prenatal or maternity clinics have been listed this year by the committee on

out-patient work of the American Hospital Association.

The interest in child welfare is likewise finding expression in the establishment of clinics for the instruction of mothers in the feeding and care of infants, and the care and treatment of children of pre-school age. School clinics, especially dental clinics, are following the development of medical inspection of school children.

The development of clinics as a part of the program of public health movements is having a healthful effect upon established general dispensaries. These newer, special clinics, with efficient service their watchword and the prevention and cure of disease their end, are establishing standards by which the methods and the end results of dispensary work generally may be measured.

Clinical Service of State Boards of Health

A number of state boards of health are developing clinics in various communities as a part of their function as an agent for the protection of health. The needs of communities which have no ready access to adequate medical facilities in relation to important disease problems are also being met by state health departments by actually taking clinics to these communities. Space will permit but brief mention of these important public health activities. In some states the maintenance of tuberculosis clinics is a state function. The Pennsylvania State Department of Health maintains over a hundred of these dispensaries. Massachusetts and Illinois conduct clinics in many cities and towns for the after-care of poliomyelitis. The Bureaus of Child Hygiene of Massachusetts, Texas, New Jersey, and other states hold child welfare clinics in various places in their respective states. The North Carolina state board has done pioneer work in the South in taking to many of its smaller communities dental clinics, and special operative clinics for children suffering from diseased tonsils and adenoids. Medical inspection of school children in that state revealed such a need for correctional treatment that the state board added the development of treatment facilities to its health promotion activities.

The New York State Department of Health, in cooperation with the State Department of Education, the State Hospital Commission, the State Commission for Mental Defectives, State Charities Aid Association and the American Red Cross, and later the American Society for the Control of Cancer, has inaugurated a series of group consultation clinics in several counties of the state, for the purpose of bringing aid not locally available to the medical practitioners in rural counties. In this way they place at their disposal adequate medical consultation service, supplemented with a diagnostic laboratory, and an x-ray department, and the encouragement of periodic physical examinations, for the purpose of an early recognition of disease conditions.

The entrance of the state into the field of providing diagnostic and treatment facilities may indicate the beginning of a movement of great significance both medically and socially.

Brief mention only can be made of the other aspects of recent dispensary development. The health center idea has found an able exponent in the American Red Cross. This organization, in entering the field of rural hygiene, is tackling one of our most difficult public health problems, the crux of which is the lack of adequate medical facilities. With the development of industrial medicine there is a constantly increasing number of dispensaries maintained as an essential part of the human maintenance departments of many industrial and mercantile establishments.

Evening Clinics and Pay Clinics

Each year is finding a greater number of out-patient departments open one or more nights per week, to meet the needs of employed people who would otherwise have no convenient access to medical facilities. These evening clinics are not all conducted as pay clinics. A considerable number of tuberculosis dispensaries now have evening hours, for those patients who, though able to work at least some of the time, still need to be under clinical observation and instruction. The National Tuberculosis Association lists 120 out of a total of 493 tuberculosis clinics as having evening hours. The larger number of night clinics are for patients who are able to pay modest fees. These pay clinics are helping solve the health problem of that large class of people in every populous community who are not so poor as to need medical charity, nor so rich as to be able to purchase adequate medical service, particularly the service of the specialist. Reports were received last year by the American Hospital Association of eighty hospitals and dispensaries which maintain evening clinics.

Medical social service is finding a major part of its field related to out-patient work. The social workers perhaps more than any other person is relating the work of the medical agency to the needs of the community. She is helping many a dispensary to make its work more valuable by helping to make secure and effective for the patient the results of medical treatment.

Significant of the increased interest in out-patient work are such undertakings as the development in the American Hospital Association of a service bureau on dispensaries and the commu-

nity relations of hospitals. Various studies of dispensaries have been made during the last year or two. Noteworthy among these are the study of New York dispensaries made by the Public Health Committee of the New York Academy of Medicine, a considerable part of the report of which has been published in THE MODERN HOSPITAL, the investigation of dispensaries in Illinois made by the Illinois State Health Insurance Commission,[1] and the study of Cleveland dispensaries and hospitals which formed a part of the Cleveland Hospital and Health Survey. Of great promise is the dispensary development program of the United Hospital Fund of New York, which program was briefly outlined in a recent issue of THE MODERN HOSPITAL.[2]

Thus are dispensaries and hospital out-patient departments being developed to promote public health, and to make more efficient, through organization, medical facilities for the treatment of ambulatory patients. Yet with all that has been done to improve out-patient work, the chief assets of many a dispensary are its unrealized opportunities for service. But of this we can be sure: that forces are at work to make the dispensary a good place in which good medical service is available for increasing numbers of patients.

[1] See report of Health Insurance Commission of the State of Illinois, 1919, pp. 347-364.
[2] See THE MODERN HOSPITAL, Dec., 1920, p. 502.

LAST FOREIGN QUARANTINE STATION GOES TO PUBLIC HEALTH SERVICE

With the transfer, now imminent, of the New York quarantine station to the United States Public Health Service, the Federal Government will come into complete possession and administrative control of the country's inner line of defense against disease coming from abroad.

Legislation, first adopted in 1893 and subsequently supplemented, provided for the purchase by the Federal Government of the seaport quarantine stations of such states as might be willing to part with them. Most states were glad to be relieved of the expense of carrying on a work that was essentially one for national rather than local protection; but some of them hesitated to give up local control, especially in the early days when ideas of proper quarantine methods differed radically, owing to the lack of information now available as to the transmission of the great plague diseases.

However, one by one the stations were taken over until only New York was left; and now the agreement for its transfer has been reached, and formal action waits only on the presentation by the state of proof of title to the premises.

The Marjorie Strecker Hospital for Children is a department of the Bethesda Deaconess Hospital at Cincinnati, O. It is named in honor of the daughter of Mr. and Mrs. B. F. Strecker of Marietta, O., who contributed an amount covering the entire expense of rebuilding and refurnishing the hospital. It is a two-story stucco building, having an operating room, two wards, one of which is for free service, two sun-parlors, and nine private rooms. The capacity of the institution is thirty beds.

DEVELOPMENT IN NURSING EDUCATION DURING THE PAST YEAR

By ANNA C. JAMME, R.N., President, National League of Nursing Education, San Francisco, Cal.

The outstanding fact in nursing education in 1920 has been the small number of students entering the schools. This has brought about study and discussion of the reasons for this condition, and the preparation of valuable reports, which will soon be completed. The most fundamental reform which has been suggested is the eight hour day for students. Some hospitals have already instituted it, and the results have been very encouraging indeed.

There has been a decided advance in methods of instruction during the year—better courses and equipment, and a higher educational standard. If nurse educators keep the highest ideals before them, nursing education cannot but go forward.

THE year of 1920 has not passed without making some contribution to the advancement in hospital and nursing development. Like 1919, it has been characterized by considerable strain and anxiety on the part of those intimately concerned with hospital administration and the administration of schools of nursing. It has, however, brought some compensations which offer encouragement as we close the year and look forward to the new one.

The year has shown important development in hospitals, with respect to the standardization of medical service; the carrying forward of the idea of the hospital and school of nursing as a community responsibility; and the greater use of the hospital by the people of the community, due to some extent to the influence of the great movement in health education. Hospitals, as a rule, have been well filled, and not a few have extended their capacity by additional buildings. New hospitals have been built, even under present difficult conditions.

What has probably been closest to those engaged in hospital administration and the conduct of a school of nursing is the continued limited number of applicants for the schools in every section of the country, and more particularly in the larger and industrial centers. This situation has possibly been more acute in the Eastern than in the Western and Pacific states, although sufficiently serious in all states to cause concern, and earnest and thoughtful inquiry as to the reasons. Many questions have been raised by this condition, and it has been borne in upon those interested in the development of the profession of nursing that possibly the old order of training, established on a basis now obsolete, namely, the apprenticeship system, whereby the hospital depended on the students for the care of its patients, has apparently ceased to function. The continued lessening of interest in nursing by young women who are looking for a useful future career merely shows the reaction against this system.

The situation has demanded a critical study in order to find definite reasons upon which to work toward a policy of reconstruction, if necessary. Inquiries have been set on foot, some of which, as they develop into statistical form, will offer a good basis for opinion on the reason why young women do not enter nursing schools. A very valuable study has been undertaken by the Committee on Nursing Education which is working under a grant from the Rockefeller Foundation. This committee has been most searching in its investigation, and it hopes in a short time to publish its report, which will undoubtedly outline a definite policy to be considered in future work. Another development, stimulated by the situation in schools, is that which has been undertaken by the Central Council of Nursing Education. The work of this council is directed toward publicity and the dissemination of general information on schools of nursing, with the ultimate end of bringing under its publicity plan a group of schools of standard requirement and methods of teaching which may be recommended to prospective students. The headquarters of this Council is located in Chicago, but its operations are extended into surrounding states. These and other sources of inquiry conducted in individual states and by individual organizations will, it is hoped, give light on what has been a more or less acute problem for some years, but one which has never been taken hold of in an intelligently vigorous and persistent manner.

An outstanding development which will have immediate and direct influence on all nursing matters has been the establishment of a national headquarters by the national organizations of nurses, namely, the American Nurses' Association, the National League of Nursing Education, and the National Organization for Public Health Nursing, in cooperation with the American Red Cross. This will serve to unify the work of the associa-

tions and the department of nursing of the American Red Cross, and will undoubtedly act as a clearing house on information pertaining to nursing affairs for the United States; and also as a bureau of exchange for positions in hospitals and in public health work. It is hoped that eventually branch offices will be established in other sections of the country.

While the year 1920 was without any doubt one of stress and anxiety, the actual work of the hospitals and schools was carried on with even notable improvement in the teaching and care of student nurses. The hospitals of the country owe much to their executives, the superintendents of the hospitals, and the superintendents of the schools, for their judgment and courage so admirably demonstrated during this most critical period, when it has been difficult beyond reason to secure the necessary assistance, professional and domestic, to care for the sick under their roofs.

Eight Hour Day Favored

The situation brought to the surface, as perhaps nothing else would have done, the difficulties under which hospital and schools are conducted. In many cases remedies could be at once instituted, such as the addition of domestic service to do some of the things which have been largely done by the student nurse; and of graduate service in the administration of wards and in the further care of the patients. The most fundamental reform relates to the hours of duty for student nurses. The general sentiment is in favor of an eight hour day and night, and where hospitals have been able to do so by the employment of more graduates and the service of ward assistants, the eight hour system has been established. This may very rightly be said to be the crux of the situation in regard to the student nurse, and has had its immediate influence on the teaching in the school, the social life of the student, her physical well-being and, not least, her mental and spiritual development. With the unreasonably long hours of ward duty now becoming relegated to the past, attention can be directed to the needful instruction of the students and their physical surroundings. Not only does the student herself improve under this régime, but her work is much better performed and the patients are better cared for. Where the eight hour system is well administered, and there is a sufficient force to carry it out, the ultimate result is a better nursed patient, a more efficient student, and a smoother working organization. When it has not worked out successfully it has been due to a lack of sufficient force, professional and domestic.

The year has shown decided advance both in methods of instruction and increased opportunities for obtaining good class work. The university courses have gone forward, and the number of students has been slowly but steadily on the increase. These schools have, from general report, suffered less from the shortage of applicants than others. There are at present eighteen schools for nurses connected with universities and colleges, and in some instances the combined five year course is in operation, leading to the academic degree and diploma of graduate nurse. What appears to be a coming development in the early training of the nurse is the affiliation with junior high schools for the preliminary studies. This is being done in three centers where students from schools in the locality go each day to the junior college for at least four hours, for such subjects as chemistry, biology, anatomy and physiology, bacteriology, nutrition and cookery, and in some instances, nursing procedures. These students form separate classes and have the advantage of university trained instructors, and well qualified nurse instructors; they also have the use of the laboratories and class rooms of the high school. The expense of all this, including the salaries of the instructors, is borne by the local boards of education. During the period when students are having this work they are on duty from two to four hours in their respective hospitals, thereby relating their instruction to their practice work.

Equipment is Improved

There has been, on the whole, improvement in class room and teaching equipment. It is now a rare instance when we do not find in a school of good standing a demonstration room as well as a lecture room which is, as a rule, furnished with the same equipment as that used in the wards. The students are here taught and drilled in practical nursing procedure before they are permitted to do the work at the bedside of the patient.

The constant need of more nurse instructors is still keenly apparent, and although there has been some increase in their numbers, it is impossible to fill the demand in all parts of the country. It is estimated that there are approximately 1,000 trained nurse instructors in the 1,585 accredited schools. This does not mean that there is one in each of 1,000 schools, as in a number of schools there are two instructors, one for the theoretical teaching and one for teaching and supervising the practical work. It is interesting to note that there is an increase in the number of paid medical and lay lecturers over the last two or three years. Heretofore their service was entirely voluntary, and maintained at great difficulty on the part of the lecturers, who were not in all cases

fitted for it and could not find the time for the necessary preparation.

Hand in hand with the improvements in the hours of duty, the housing and social life of the student have received more consideration than in past years. Far more attention is now given to suitable buildings, separate from the hospital, for the housing of students. In these are now included several reception rooms, recreation rooms, a library, diet kitchen, laundry, and other necessary adjuncts to daily life. What may rightly be considered a development of far reaching importance is the growth during the past year in student activities, and the control of their home and social life through their own organization. The shortage of students has led the schools to admit at a much younger age than formerly, which means a grave responsibility on the part of the schools towards this immature and still growing girl. The National Young Women's Christian Association has entered with spirit into the development of student activities, and with most interesting results. It has aided in forming student nurse clubs, with programs for their social entertainment which has brought the student into contact with normal outside interests, and with other professional students; it has organized within the schools Young Women's Christian Associations in Boston, Philadelphia, Richmond, Chicago, Ann Arbor, Iowa City, and San Francisco. It has also admitted to its summer conferences of college students the students in schools of nursing.

Educational Level Raised

In many schools the educational level of admission has been raised and it has been noted that when this is the case there has been a fairly good flow of applications. While on the other hand, the school having no level of educational requirements and poor conditions for the students' instruction have more generally suffered. With publicity work now well under way and reaching into every part of the country through the Red Cross channels, applicants are becoming better informed on the merits of the different schools and are showing greater discrimination in their selection. Young women are desirous of good training in whatever work they propose to take up, and the expression of students at present in schools of nursing shows that they have a keen realization of existing defects, and what should constitute a good school. From general reports it would seem that the educational preparation is having effect upon the quality of the work of the students, and while many schools report a shortage, they at the same time report, on the whole, a much better grade of students and better quality of work than obtained formerly.

The Army School of Nursing has continued in its development, and is offering a very definite contribution to the advancement of nursing education, not only through the demonstration which it is in a position to make, of good theoretical teaching, but also in practical work through its affiliations with civil hospitals for teaching and practice in subjects not fully covered in the military hospitals. The units are now concentrated into two centers, one at Walter Reed Hospital, Washington, D. C., and the other at Letterman General Hospital, Presidio of San Francisco. At the Walter Reed there have been 385 students in training during the year 1920, and about half this number at the Letterman General. Many of these students are preparing for public health nursing, others for the army nurse corps.

The call for nurses in the field of public health work continues most incessantly. The question of the training of a sufficient number to answer this demand has been serious. The question of shortened courses and of quick preparation of the public health nurse has been brought forward, but it is obviously as useless to put into this work women with inadequate training as it would be to put in poorly trained health officers or sanitary engineers. Legislation in some states is guarding this, and laws are being enacted giving power to define qualifications for public health nursing. The public health courses have been made more difficult, and in some instances extended from four to eight months, with actual teaching and supervision in field work increased. A public health course is not now considered of standard grade if it does not provide a good field work experience, demonstrating the various conditions a nurse may meet and making her familiar with all branches of public health service. The extension of public health nursing in respect to tuberculosis, venereal disease, maternity and infant welfare, the school child, industrial hygiene, factory nursing, etc., means that every nurse who undertakes this must be a good workman for the public health, and her training must be such as to fit her for this type of service.

State bureaus or departments of public health nursing are being established under state boards of health, and there is definite progress in legislation pertaining to public health nursing. The laws are largely enabling acts, and merely permit employment of public health nurses without defining qualifications. The laws in California, while they are to a great extent enabling acts, give to the state board of health the power to prescribe such qualifications as are necessary. There seems to be a tendency in some states to empha-

size numbers rather than qualifications in state board requirements, consequently, owing to the great demand, a large number of nurses have been sent into public health work without sufficient preparation.

Standardizing Training of Attendants

During the past year there has been greater interest in reaching an agreement as to what the training of an attendant should be. In two states, New York and California, laws have been passed providing for licensing trained attendants, and prescribing their duties and course of instruction. In Boston the work is being taken up on a very good plane but not under state control. The course covers from nine months to one year, and is largely of a practical character, in the bedside care of less acute and chronic patients, the normal mother and baby, and convalescent children. It is estimated that trained attendants will supplement the registered nurse in the care of patients during convalescence, and also as attendants in hospitals. In California and New York the practical nurses were licensed during a period of indecision, at the close of which all who desired to be licensed must have had a training covering either one year or nine months in an approved school for trained attendants.

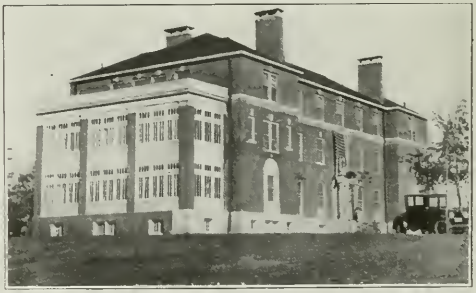
Legislation concerning nurse registration is changing somewhat. In New York the Nurse Practice Act was amended and very much strengthened. It now requires registration and certification of not only graduate nurses but likewise trained attendants. This, with an annual renewal of the certificate, will keep up a live list of nurses and attendants. Other states are contemplating the amending of their acts, and 1921 may see some important changes in legislation bearing upon preliminary education for admission to schools, and the professional training.

There have been during the past year the usual and inevitable controversies and conflicts of opinion regarding nursing education, which have been characteristic from the beginning of the work, but which the situation of 1919 and 1920 brought out with greater emphasis. Yet, in spite of this reactionary attitude, the schools, on the whole, at the close of 1920 were actually on a better basis educationally than they have ever been, notwithstanding the shortage of students; and the outlook is more encouraging than it has been for some years.

The years of 1919 and 1920 have probably been the most difficult from the standpoint of hospital and school administration in the history of these institutions, and yet, at the same time, these years have marked some advancement. The point has been reached where open debate on the question is in order, and the participants are hospital directors and trustees, physicians, hospital superintendents, superintendents of schools of nursing, educators, and those representing public interests. It has not been unusual to see an open forum of the faculty and students of the schools. This may be a phase of educational development through which we are passing, and schools of nursing are no less exempt than other professional schools. What will be the outcome of this in 1921 we are not yet prepared to say. Preventive medicine is opening the door of a new epoch not only for medicine but likewise for nursing. If every nurse is to be an intelligent co-worker with the physician and health officer in the great cause of health, her educational development and training is no less a matter of serious and thoughtful reasoning than is that of the physician or health officer. In the final analysis the ultimate object of all plans for the education of student nurses is and should continue to be the making of the nurse scientifically and economically fit to carry the burden of the work which is being placed upon her, and to enable her to bring to it knowledge, a broad vision, strength of will, and a sympathetic viewpoint in the performance of her task.

Nursing education, and all that this involves, cannot fail in its object if nurse educators, and those supporting the high standard of this calling, have faith in their convictions as to what is right and essential. This firmly established, we should be fortified by past experience to go forward faithfully and courageously, making our schools of nursing in every accepted sense of the term, inspiring our students by our leadership, and our faith in them, to become good workmen in the service of public health.

We know the nature of all things we are relieved from superstition, freed from the fear of death, and not disturbed by ignorance of circumstances from which often arise fearful terrors.—Cicero.



The Manchester Memorial Hospital is a tribute by the people of Manchester to the men and women of that city who served in the Great War. The institution, having a capacity of fifty-six beds, was opened on Armistice Day, 1920.

SOME THINGS THAT HAVE BEEN DONE IN DIETETICS IN THE PAST YEAR

By LULU G. GRAVES, Professor of Home Economics, Cornell University, Ithaca, N. Y., and Honorary President, American Dietetic Association

A GREAT deal of work has been done and the field of dietetics and some progress shown in dietotherapy, since our report a year ago. By no means has there been a great reformation, but there has undoubtedly been greater advancement made than in any previous year.

The number of inadequately equipped dietitians and badly managed dietary departments remains disconcertingly large, and urgent calls for better trained women continue to come to us almost daily. As stated in a previous report, the chief reason this demand cannot be met is that until very recently no inducement was offered the well trained woman to take up this line of work. In the past few years, however, many medical men, hospital superintendents, and managers of institutions have realized the importance of a good dietary, and have given recognition and some authority to the dietitian.

As women with more ability have been attracted to this work we have been convinced that the majority of home economics courses offered in our colleges are not well adapted to preparation for institutional requirements. Already a few colleges are making changes or additions to their curricula which will be of much benefit to the woman preparing to become a dietitian, but as yet none of them meet our needs. Since repetition of a point helps to emphasize it, may we repeat the point made in the review of dietetics, published in the March, 1919, issue of THE MODERN HOSPITAL, that in order to provide the best training for dietetics and dietotherapy, the college, medical school, and hospital must combine their efforts.

Affiliation of Institutions Needed

Since drugs are being used less, and diet more, in medical therapeutics, it behooves us to improve our knowledge and our service. How can this be done more effectively than through the affiliation of institutions most concerned? Each institution would be greatly benefited by such an affiliation. In addition, a training of this kind, given to public health dietitians and nurses, would carry the right kind of information into the home, through the schools, public health centers, etc., and help very materially in the promotion of health and the prevention of disease by right living and right diet.

The trend is decidedly upward in the field of dietetics, and more has been done in 1920 than in any previous year. The importance of a good dietary is beginning to be realized, and some recognition and authority given to the dietitian. As the importance of her position grows, however, it becomes increasingly apparent that the training in most schools and colleges is insufficient and the college, medical school, and hospital must combine to make it sufficient. Business firms, too, are beginning to realize that a dietitian is a financial as well as a healthful asset. In consequence, hospitals must watch their step, or the business world may lure the well trained dietitians away from them.

It is a significant fact that the management of the Chicago Beach Hotel, realizing that their service did not provide suitable food for children, engaged Miss Esther Ackerson to conduct a dining room for the exclusive use of children. Through her university training, and experience as a dietitian at Michael Reese Hospital, Miss Ackerson is well prepared to give this service, and mothers need feel no hesitancy in entrusting their children to her. When the management of a large, well conducted hotel takes such a step, should not we of the profession try to keep pace?

Business Firms Employ Dietitians

Other business and commercial firms are adding dietitians to their staffs and finding that it pays, not only from the standpoint of health but from a financial standpoint as well. Some of these have interesting data to prove that it pays. In fact, the home economics woman of today is being strongly attracted to the industrial world, and herein may be seen another danger signal for the hospital. Just as the hospital dietary department is beginning to attract the capable woman with a knowledge of foods and nutrition, the business world learns of her value, and offers greater attraction than the hospital has ever been able to offer. This is not solely a higher salary; in the business organization her position is not that of an inferior, but she is allowed freedom in the management of her department and authority to carry out her plans. Her position is on a higher plane than that of the dietitian in many hospitals,

her hours are shorter and not nearly so many things are demanded of her. However, the woman who is truly interested in nutrition, and who is ambitious, makes no objections to the numerous requirements of the hospital position, but no self-respecting woman should be subjected to the indignities which are all too frequently heaped upon the hospital dietitian. May I recommend that you read the paper on "Training for Administrative Positions in Cafeterias," by Roland White, in the December, 1920, issue of THE MODERN HOSPITAL? With the establishment of such standards as Mr. White advocates, and the opportunities which his company offers, the present problems of our dietary department would be solved.

Course of Training Advocated

During the past year a great many letters have come to the secretary and president of the American Dietetic Association, from medical men, hospital superintendents, and business men, indicating how great these problems of the dietary department have become. Many valuable suggestions, and not a little encouragement, are contained in these letters. Several hospital superintendents have expressed a desire to help the Association or its individual members in any undertaking for the advancement of the science of dietetics. It is gratifying to know that some of our leading nutrition experts are now urging a course similar to that which has been advocated by the writer for more than three years. We take the liberty of quoting from some of these, as follows:

Dr. Lafayette B. Mendel: "It appears to me that the time is approaching when an effort should be made to have teaching hospitals consider the question of training medical dietitians. A committee, consisting of three or four representatives of your society, and as many scientific and medical men, should be formed to consider the necessary steps and frame a constructive program. At present a number of medical schools are contemplating radical changes, which is all the more reason for prompt action."

Dean of Medical Faculty Writes

Dr. George Blumer, dean of the medical faculty of Yale University: "I think that at the present time the most important thing is to get trained dietitians into our hospitals. . . . It is never going to be possible satisfactorily to treat certain kinds of diseases like diabetes, and other metabolic conditions, without the help of hospital dietitians, so that from my point of view, if there is any way that the American Dietetic Association can impress upon the hospitals the necessity for trained dietitians, I should say that that was at present their most important function. When I say hospitals, I refer also to the dispensaries. I think there is going to be a great field in the future for the use of dietitians in connection with out-patient clinics, as well as in connection with the wards of the hospital."

Dr. Edwin A. Locke, Boston, Mass.: "I am confident that one of the earliest developments in our hospitals generally, throughout the country, will be the establishment of nutritional clinics, and that vastly more attention will be given to the dietetic department of such institutions. For my part, I feel that the dietary of a hospital is of almost more importance than the pharmacy. Your plans are so well worked out, and I have had so little contact with the movement, that I have no suggestions to make. I do, however, feel constrained to give you my most hearty approval and wish you Godspeed in this splendid work."

This question was discussed at the annual meeting of the American Dietetic Association in Cincinnati, and a committee to consider standardization of dietary departments was appointed, with Miss Rena S. Eckman, of the W. A. Foote Memorial Hospital, Jackson, Mich., as chairman.

The committee's report follows: "To the end that a dietitian may be properly trained for her

St. Luke's Hospital at Davenport, Iowa, boasts no particularly unique features. It was built during the war on plain, straight lines, to give the hospital as much fire proof building as possible for the money expended. Each floor of the building, above the first, has a sitting room or sun room at the south end, the windows of which open up to make it like a porch. The fifth floor has a sun room open on three sides, and an open air ward. The building is planned for future extension to the south. Temple and Burrows, architects, Davenport, Iowa.

The Virginia Mason Hospital, Seattle Washington, just completed by a group of Seattle physicians, is built on a hill above the city so that it has a view over the city and Puget Sound off to the mountains. The main floor entrance opens into a large waiting room attractively furnished in grey wicker and blue tapestry. A main office connects with the waiting room and a wide corridor leads to the offices of the various doctors. The hospital entrance and waiting room are on the floor below, made possible by the grade on which the building is situated. The second, third, and fourth floors are given over to the patients' rooms, having sixty beds, while on the sixth floor is the operating suite, sterilizing rooms, rest rooms, and nurses' quarters. Bebb and Gould, architects, Seattle, Wash.

work, it is a necessary proceeding for that work to be standardized. It is therefore recommended by this committee:

First, that she be responsible to the superintendent of the corporation or institution in which she is employed, or to his accredited representative alone.

Second, that she be responsible for the entire dietary department and food laboratories, in that institution.

Third, that she have authority over the purchase of all culinary supplies, either buying them directly or approving the purchase of those supplies, bought upon her recommendation.

Fourth, that she have charge of her own employees and her own pay roll.

Fifth, that if the institution is a hospital, with a training school for nurses operated in connection with it, she be responsible for the course of study in dietetics, and for the instruction of the pupil nurses in this branch of their training.

Sixth, that she cooperate and consult with the physicians in providing general and specific diets for the patients of the institution.

It goes without saying that only a highly trained and experienced person can fill this position. Under these conditions a dietitian has a wonderful opportunity to further the cause of dietetics. Young women, fresh from their technical and theoretical training in household arts and nutritional science, may use their various departments as a practice field. Postgraduate work may be done here, and graduate credit obtained; and, incidentally, young dietitians may be fitted to take large positions in administrative work."

A number of hospitals are living up to these recommendations now, though a far larger number are not, and these are the standards toward which all should work.

The layman is being educated, the housewife is eagerly seeking information which will help her to care for her household more intelligently. They appeal to hospital people for help. The dietitian must be prepared to do her part so as not to disappoint them. That she fully realizes this is evidenced by the spirit shown at the third annual meeting of the American Dietetic Association, which was held in New York City in October. The program was full, three sessions daily for three days, and one session on the fourth day, yet the interest and attendance were never abated. The winter garden and ballroom of the McAlpin Hotel were reserved for this meeting, and provided comfortable as well as pleasing accommodation for the sessions and commercial exhibits. About five hundred people were in attendance and a lively interest was shown in all the papers read, which were supplemented by spirited discussions from the floor. The program was sufficiently varied to be of value to every member, whether engaged in administrative, scientific, or welfare work. The general sessions were devoted to topics of general interest. Dr. Alonzo Taylor's talk was an education to most of us along entirely new lines, and Dr. Gies' discussion of diet and dentition also gave us a new point of view. The session Thursday forenoon, at which Mr. John Kelly, buyer for the Arthur Dorr Markets, Boston, demonstrated meats and meat cutting, while telling many practical points on judging and buying meats, was a feature we seldom have at conventions. This demonstration and talk was given at Teachers College.

Secretary Handles Large Amount of Work

An immense amount of correspondence has been handled by the secretary of the Association. As a follow up to some of the activities at the Cincinnati meeting, copies of the resolutions relative to a representative dietitian having a place on the board of examiners for nurses, were sent to the president and secretary of all national nursing associations and state leagues of nursing, and to the governors of all states. Copies of the above mentioned resolutions, relative to standardization of the work of the dietitian, and letters expressing the desire of the Association to render services, were sent to hospital superintendents, nutrition experts, deans of medical schools, and others interested. A questionnaire was sent to all members of the Association, and to hospital superintendents whose dietitians were not mem-

bers, covering the salient points in the work of a dietitian. These received consideration to a greater extent than questionnaires usually do, and some valuable data was acquired. This data was compiled, and copies of the results sent to heads of home economics departments of our colleges. In September, letters were sent to members of the Association, and others who have manifested interest in it, containing a great deal of information in regard to what the Association is doing, the annual meeting, and points of interest in New York and neighboring cities. In addition to these letters, notices of 241 vacancies, and 406 requests for information were given attention. When it was learned what a vast deal of work was being done by the secretary, the Association voted to provide a salary for this office, and a committee was appointed to carry out the necessary details for making this provision.

Meanwhile, there has been an equal amount of service rendered through the office of the president. Not so many form letters went out from this office, but inquiries and calls for help have been about as numerous. A large number of positions have been filled, and information given relative to training for dietitian work, including college course and student dietitian training. In September, letters were sent to all superintendents of hospitals having a dietitian, reminding them that the American Dietetic Association was meeting independently of the American Hospital Association this year, and stating special reasons why the dietitian should attend the annual convention.

The American Dietetic Association was represented at the conference held at Lake Placid, N. Y., early in May, for the purpose of considering the organization of a Bureau of Institutional Research, also at the meeting of the American Hospital Association in Montreal in October, and at the meeting of the home economics section of the National Education Association in Cleveland.

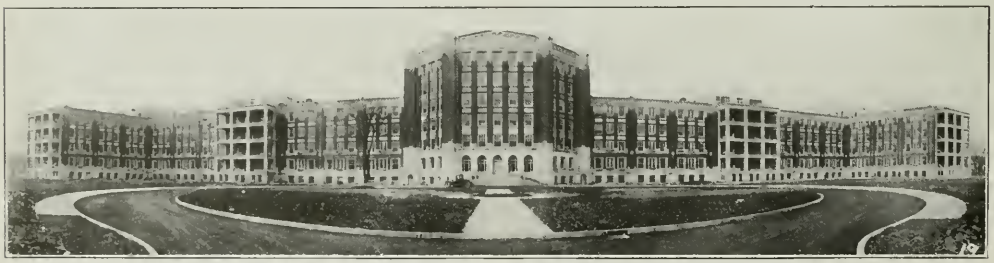
During the first years of our organization new duties came so fast and so many unexpected responsibilities fell upon us that our first thought was to have these met as best we could, and by the one who could best perform the task. But with our enlarged membership, and a much improved scheme for work, we are beginning our fourth year with the feeling that we are now a real professional organization, ready to assume our share in the advancement of nutrition and health activities. Mrs. Bryan, the president, will bring new inspiration to us, and with changing economic conditions we anticipate a very busy and profitable year.

During the past summer the writer had the privilege of visiting a number of leading hospitals in the western part of the United States and Canada, and of meeting many hospital and medical people. The attention given to the dietary department by these hospitals indicates a most progressive attitude. Hospitals of the eastern section of the country can learn much from those in the West, and vice versa. We do not want our Association to be an association of eastern dietitians, or of western dietitians, but we want it to be an association of American dietitians.

NEW NURSING SERVICE NEEDED

The fact that public health nursing, with its large field of educational service, offers a far more attractive future than private nursing, says *American Medicine*, must be taken into account, and adjustments made in our training schools. It is necessary to inquire whether the present length of time demanded for nurses' training is too great; in how far courses must be altered with a view to cutting out essentials; and to what extent the hospitals and dispensaries may participate in promoting the development of courses for training attendants capable of performing at least 75 per cent of all the private nursing required, and certainly 50 per cent of hospital nursing. The highest trained nurses should be free to yield the greatest results to the community.

The shortage of nurses, this magazine believes, is not to be met through a striving for the highly specialized trained nurse, but through the promotion of a new type of nursing service which will be efficient and capable of supplying public wants. The name given to the service is immaterial, except that it must be easily distinguishable from the specialized nurse, now known as the registered nurse. The fears of the old line registered nurse must be considered, but her attitude must not dictate the policy for the community.



A front view of the Henry Ford Hospital, Detroit, Mich., additions to which were erected in 1920.

MENTAL HYGIENE, 1920

By FRANKWOOD E. WILLIAMS, M.D., Associate Medical Director, The National Committee for Mental Hygiene, New York City

Great changes have occurred in the science of mental hygiene since the first books were written on the subject from fifty to seventy-five years ago. Probably the most significant thing in 1920, following the general trend, is the increasing emphasis upon problems of the individual, whether of the so-called normal or delinquent.

That mental hygiene is more than "something to do with the feeble-minded or the insane" has been realized more clearly in 1920 than ever before, and each year will probably bring a better understanding of its broader aspects and great possibilities.

The glaring failure for the year is the lack of preparation to deal with the great problem of mentally diseased ex-service men.

WILLIAM SWEETSER wrote of mental hygiene in 1843, Isaac Ray in 1863, and D. A. Gorton in 1873. Each was writing a book[1]—the only books, so far as I know, with this particular title—rather than articles of review for the year; but the three books may be taken as representative of mental hygiene in these years.

Sweetser, Ray, and Gorton were writing at a time when there was little scientific knowledge in regard to nervous and mental disease, or even physical hygiene, for that matter. Mental diseases were still limited largely to the three groups—mania, melancholia, and dementia. The notion still held generally that mental disease was somehow a moral infirmity. With this view, of course, these men did not agree, believing insanity to be a disease as other diseases, and the causes, and, therefore, the means of prevention, to lie in physical condition. Mental hygiene was to them and was for the years 1843, 1863 and 1873, largely a matter of physical hygiene, proper food, exercise, ventilation in sleeping rooms, proper clothing and the like, although emphasis is also placed on such things as the harm of sexual excesses, religious emotionalism, spiritualism, and too much novel reading.

The mental hygiene of today has been made possible by the clearer understanding of the nature of nervous and mental diseases that has come since Gorton's book, the last of the three, was published. Between the mental hygiene of 1843, 1863, and 1873, and the mental hygiene of 1920 there is, therefore, considerable difference. Much that was then written of as mental hygiene is now elaborated in books as physical hygiene. There is a very evident change of emphasis between the mental hygiene of 1909 (the year of the organization of the National Committee for Mental Hygiene) and the mental hygiene of 1920; and, a change is observable, at least, between 1918 (the year in which the late Dr. August Hoch wrote the chapter "Mental Hygiene" for Park's Public Health and Hygiene) and 1920. These differences and changes of emphasis have been steadily toward a personal hygiene that looks not alone to the prevention of the insanities, but to the better adjustment and, therefore, the greater efficiency and happiness of all of us.

Mental hygienists began their organized work quite naturally by tackling the obvious jobs—a matter of clearing the land and laying foundations. And the obvious jobs in 1909 were greater hospital facilities, better hospitals, more adequately trained physicians and nurses, differentiation between the criminal and the insane, between the pauper and the insane, humane methods of commitment, removal of the element of "disgrace," adequate statistics, investigation into methods of treatment, social investigations and the like. All of these studies and efforts still continue, but there have been many changes, even in eleven years, and with the changes have come, quite naturally, changes in trend and emphasis. The trend has always been toward a more personal hygiene. It is this emphasis upon the problem of the individual—whether that person be a so-called normal person, a feeble-minded person, a delinquent, or one threatened with a nervous or mental disease—as opposed to the problem of the group, that has been, probably, the most significant thing in mental hygiene for 1920, in spite of the fact that it may not bulk so large in a record as some other pieces of work, the groundwork for which was laid in the earlier efforts of mental hygienists and which have developed rapidly during the past year. To many, "mental hygiene" signifies "something to do with the feeble-minded or the insane." It does, of course. Its implications, however, are much wider than this, and these wider aspects have received more attention during the past year than formerly, and undoubtedly will receive an increasing amount of attention year by year. Men-

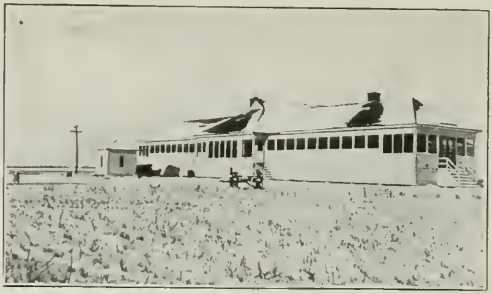
1. Sweetser, William. Mental Hygiene. New York; Langley, 1843. 1st ed. Ray, Isaac. Mental Hygiene. Boston; Ticknor & Field, 1863. Gorton, D. A. Essay on the Principles of Mental Hygiene. Philadelphia: Lippincott, 1873.

tal hygiene has not reached the mental pellet stage —"eat an apple a day and keep the doctor away" —and it may be hoped it never will; but there has been steadily developing a body of fact that is helpful in personal hygiene, the personal hygiene of the average man as well as the unusual man.

Fundamental mental states and habits are formed early—not so inescapably by the great-grandfather, perhaps, although he does indeed play his part—but much earlier in the life of the individual than has commonly been supposed. The strategic point of attack, therefore, as it serves both the present and the future (great-grandfather) is the child. The approach to the child must be through its instructors, the parents and the teachers. Although only a beginning has been made, it is important to record that increasing attention is being given to mental hygiene in universities, colleges, and normal schools. In some, special lectures are included in courses of hygiene; in others, formal courses in the subject itself are given. On the immediately practical side, health departments of colleges and universities are beginning to consider, and in a few cases definitely to look into and to provide for, the mental health of their students. Significantly, too, clinics are beginning to widen their scope and while they must still give the major portion of their time to the more acute needs, the problems of the definitely abnormal, they are devoting an increasing amount of time to the lesser acute, but in many ways socially more important problems of the slightly atypical or so-called normal.

Psychopathic Hospitals

Bricks and stones are generally considered more tangible than ideas, however, and progress comparable to the brick-and-stone variety can be recorded for 1920. Probably the most farreaching has been the organization and planning of new psychopathic hospitals. The psychopathic hospital is not new in this country, although previous to the war there had been but three, Ann Arbor, Boston, and Baltimore. The usefulness of these hospitals had been demonstrated, but their function was not widely known or understood until the extensive demonstration of psychopathic hospital service in the army. The neuropsychiatric hospital and the neuropsychiatric wards in the general hospitals of the army were of such dynamic value that it is not surprising that there should follow an increased desire on the part of the general public for the extension of this type of hospital in civil communities. The past year has seen the preliminary period of discussion nearly passed in a number of states, and definite action taken towards the establishment



A unique hospital, which was opened up in 1920, is the Tuberculosis Sanatorium for Negroes, near Boley, Okla. Its uniqueness lies in the fact that all its employees and the entire staff of the institution will be negroes. The town of Boley is an entirely negro town, banks, stores, manufacturing and industrial plants all being owned by them. The sanatorium is under the control of the state bureau of tuberculosis, which is a branch of the state department of health. There are two wards providing for twenty patients each. Between them is a living room, comfortably fitted, and there is a sun porch at either end of the building. Peters and Jenkins, Shawnee, Okla., architects.

of psychopathic hospitals. At the University of Iowa a hospital is now under construction, the staff is largely gathered, and clinical work and teaching in the university are in progress. At the November election the people of Colorado voted favorably on an initiated measure appropriating $350,000 for the construction of a psychopathic hospital in Denver under the auspices of the board of regents of the University of Colorado. The bill was placed before the people of Colorado through the activities of the Colorado State Medical Society and received a majority vote of close to 100,000. It is the first time, so far as I am aware, of an electorate voting upon such a measure.

Bills authorizing the construction of psychopathic hospitals have been passed in New York and Wisconsin. A bill that composes previous difficulties and that provides for a psychopathic hospital at San Francisco, under the direction of the University of California, and a second hospital at Los Angeles will be presented to the California legislature this year. Bills authorizing the construction of such hospitals in connection with the medical departments of local universities will be introduced at the coming legislative sessions in Connecticut and Indiana. Similar proposed legislation has been approved by the board of regents of the University of Minnesota.

The problem of the feeble-minded has been before the public since the time of Itard (1800). At first purely an educational problem, it has come to be considered more recently as a social problem. Gradually, out of the discussions and investigations of the past ten years, there has been developing a consensus of opinion in regard to the feeble-minded and a more clear cut program for handling the problem, as is shown in the recommendations made this year by the Wisconsin com-

mission. This commission is presenting the following plan for legislative consideration:

1. Compulsory mental examination of all children three or more years backward in their grades, utilizing for this purpose the psychological department already existing in the office of the superintendent of public schools, and the occasional use of the flying clinic from the Psychiatric Institute.
2. Compulsory special-class instruction of all children in the public schools diagnosed mentally defective, these special classes to be developed more along the lines of handwork, manual instruction, and trade training than the ordinary academic and regular grade work of the public school classes.
3. Statewide supervision of all feeble-minded children needing such care; this after-care to be done under the direction of the state board of control.
4. Adequate institutional care for all feeble-minded persons who cannot be satisfactorily handled under supervision in the community.
5. Parole, under carefully selected parole officers, of all suitably trained institutional cases fit for community life.
6. Mental examination of all inmates of the state industrial schools, dependent schools, state reformatory, and state prison; such examination to be conducted by a flying clinic from the Psychiatric Institute.
7. Mental examination of defective delinquents and other abnormal mental types in court. Permissive legislation enabling any court in the state to call upon the Psychiatric Institute for the services of a psychiatrist in attendance at the court.
8. Legislation enabling any judge to commit for a period of observation, ten or twenty days or more, to the Psychiatric Institute, any individual whose mental condition is in question.
9. The organization of special care of adult defective delinquents, using machinery already existing at the Central State Hospital as a basis for such work with males; using the new institution at Tachita for female defective delinquents.

In addition to the survey in Wisconsin, mental deficiency surveys have been conducted this year in Maryland, West Virginia, and Missouri. The plan of each of these surveys has been broad, an effort being made not only to enumerate the feeble-minded but to study the social ramification of the problem as it affected the home, the school, the court, the state and private charitable agencies and the like. While the plan proposed for each of these states varies somewhat in conformity to local conditions, the plan proposed by the Wisconsin Commission on Mental Deficiency may be taken as typical and indicative of the course such programs are taking. The method of collecting and recording data in each of the surveys has been uniform (not true in the past), so that the data gathered will be comparable and useful for further study.

St. Luke Hospital of Greenville, S. C., is an institution for the care of colored people, and has a capacity of twenty-five beds. Medical, surgical, and obstetrical cases are admitted, while pathological work is taken care of by the Greenville City Hospital with which St. Luke Hospital is connected. There are three doctors on the staff, although the hospital is open to any reputable physician or surgeon, and a training school for nurses is maintained.

There remain five states that have not made special provision for the care and training of their feeble-minded, West Virginia, New Mexico, Arizona, Nevada, and Utah. Schools for the feeble-minded have recently been opened in Alabama, Georgia, Florida, Mississippi, and Hawaii; Massachusetts, Minnesota, Illinois, and Wisconsin appropriated large sums during the year for the construction of additional new institutions; South Carolina, Oregon, New Jersey, South Dakota, Nebraska and other states provided appropriations for the construction of additional buildings.

In Massachusetts, New York, Pennsylvania, and Michigan, particularly, there has been a considerable development of traveling and out-patient clinics. These clinics bring to the outlying districts of the state the facilities of the modern clinic. As the incidence of mental defect is higher in the rural[2] than in the urban districts, the importance of these clinics can be seen at once. The organization of these clinics varies but they are usually composed of psychiatrists, psychologists, social workers and nurses. In New York[3] a joint committee on clinics has been organized, composed of representatives from the State Commission for Mental Defectives, the State Hospital Commission, the State Board of Education, the State Department of Health, the State Board of Charities, and the State Commissions of Prisons and Parole. This means, for example, that in addition to the psychiatric experts in attendance at the clinics, there are peditricians, orthopedists, dentists, dietitians, etc. In other words, the resources of a modern city clinic are put at the disposal of communities which otherwise would be without them. Some forty-one clinics are now being conducted in various parts of the state of New York, fifteen as joint clinics. The New York Commission for Mental Defectives, in cooperation with the Department of Ungraded Classes of the New York City public schools, has made a beginning toward expert supervision of mentally defective pupils discharged from the school system, a work of very great importance.

In Massachusetts the State Commission on Mental Disease and the State Board of Education

2. Bailey, Pearce, and Roy Haber. Mental Deficiency: Its Frequency and Characteristics in the United States as Determined by the Examination of Recruits. Mental Hygiene, Vol. 4, pp. 564-96, July, 1920.

3. Sandy, William C. Clinics for Mental Defectives in the State of New York. Mental Hygiene, Vol. 4, pp. 597-604, July, 1920.

are cooperating in a survey of all the schools in the state. The state has been divided into districts and each district allotted to one of the state hospitals. The staff of each hospital will be responsible for the examination of the pupils in the schools in the district assigned to it, and as all the examinations will be made in accordance with a general plan, the results will be comparable. In Michigan traveling clinics are being organized by the state psychopathic hospital in cooperation with the state hospitals. The Mental Hygiene Commission of the Public Charities Association of Pennsylvania has continued to develop mental hygiene clinics throughout the state in cooperation with the schools and other agencies.

Delinquency

During 1916, 1917, and 1918, the National Committee for Mental Hygiene conducted a research clinic at Sing Sing Prison, under the direction of Dr. Bernard Glueck, and a psychiatric study was made of the prisoners admitted to the prison during that period. Dr. Glueck's reports[4] were widely studied and led to similar investigations in prisons and reformatories throughout the country. In 1918 the New York State Commission of Prisons, stimulated by Glueck's findings at Sing Sing, appointed a special committee to study the question of mental disease and delinquency, and requested the National Committee for Mental Hygiene to appoint an investigator to assist in the study. Dr. Glueck at the time being on duty in the Army, Dr. V. V. Anderson, medical director of the psychiatric clinic of the Boston Municipal Court, was appointed. In the reports of both Dr. Glueck and the New York Commission[5] a new Sing Sing was strongly recommended which should serve as a clearing house for the prison system of the state, and to which would be sent prisoners for thorough examination and expert determination of the course that should be pursued with them. In 1920 the demolition of the old Sing Sing and the construction of the new Sing Sing began. The new Sing Sing marks a radical departure in the matter of handling delinquents, for the plans for the new prison take into consideration not alone modern ideas of prison hygiene and prison construction. The central feature of the new prison is the clinic[6] to which prisoners will come upon their conviction, for examination—physical, psychiatric, neurological, psychological, etc.—and study, including a social study of the life of the individual. Upon the results of these examinations and studies the future of the prisoner so long as he is in the custody of the state will be determined. The feeble-minded and psychopathic repeater will be picked out and properly provided for; the untrained and potentially useful high grade moron will be identified and given his opportunity through training and understanding; the unskilled prisoner of average intelligence will be winnowed from the mass and instructed; the neuropath will be recognized and an effort made at readjustment; while opportunity will be given for further and closer study of the less markedly abnormal prisoners. In other words, prisoners in the new Sing Sing will be treated less as a group and more as individuals each differing in his way, as in any other accidental collection of persons, and each a problem in himself. From the large number of prison studies that have now been made, it is clear that the future of criminology lies in this direction. A similar method of procedure is being put into effect at the New York Reformatory for Women at Bedford Hills.

Latest Statistics

The Bureau of Statistics of the National Committee for Mental Hygiene has published its third census study of patients with mental disease, mental defect, epilepsy, alcoholism, and drug addiction, in institutions in the United States.[7] Similar studies were made in 1917 and 1918.[8] The 1920 census is of added interest because it furnished a basis for comparison with the 1920 census figures of the general population. The report can only be briefly summarized here:

On January 1, 1920, there were 232,680 patients with mental disease in institutions, an increase of 8,723 over 1918. In 1880, the number of patients in institutions per 100,000 of general population was 81.6; in 1920 it was 220.1. States with high rates of increase, compared with increase of population, are California, Colorado, Florida, Idaho, Montana, New Mexico, North Dakota, Oklahoma, Oregon, Utah, and Washington. States with low rates of increase compared with increase of population are Alabama, Connecticut, Delaware, Illinois, Iowa, Kansas, Louisiana, Michigan, New Jersey, Ohio, West Virginia. In Vermont there was an increase of 10.6 per cent in mental patients and a decrease of 1.0 per cent in general population. The New England states as a group show the highest rate of increase; the Middle Atlantic and Pacific states following second and third. The lowest rate of increase is found in the West South Central states.

The comment of Pollock and Furbush on the

4. Glueck, Bernard. First Annual Report of the Psychiatric Clinic in Collaboration with Sing Sing Prison; for the Nine Months Ending April 30, 1917. Publication No. 11, the National Committee for Mental Hygiene.
Glueck, Bernard. Concerning Prisoners. Mental Hygiene, Vol. 2, pp. 177-218, April, 1918.
Glueck, Bernard. Types of Delinquent Careers. Mental Hygiene, Vol. 1, pp. 171-95, April, 1917.

5. Anderson, V. V. Mental Diseases and Delinquency; a Report of Special Committee of the New York State Commission of Prisons. Mental Hygiene, Vol. 3, pp. 177-98, April, 1919.

6. Pilcher, Lewis F. Psychiatric Classification in Prison. Publication No. 53, National Committee on Prisons and Prison Labor, 1919.
James, Walter Babcock. The Clinic Building at the New Sing Sing Prison. American Architect, Vol. 117, pp. 107-110, January 28, 1920.

7. Pollock, Horatio M., and Edith M. Furbush. Patients with Mental Disease, Mental Defect, Epilepsy, Alcoholism, and Drug Addiction in Institutions in the United States, January 1, 1920. Mental Hygiene, Vol. 5, January, 1921.

8. Pollock, Horatio M., and Edith M. Furbush. Insane, Feebleminded, Epileptics, and Inebriates in Institutions in the United States, January 1, 1917. Mental Hygiene, Vol. 1, pp. 548-66, October, 1917.
Pollock, Horatio M., and Edith M. Furbush. Annual Census of the Insane, Feebleminded, Epileptics and Inebriates in Institutions in the United States, January 1, 1918. Mental Hygiene, Vol. 3, pp. 78-107, January, 1919.

number of alcoholic and drug inebriates is of particular interest:

In view of the oft-expressed opinion that the restrictions of the sale of alcohol would greatly increase the use of drugs, it is noteworthy that the total number of alcoholic and drug inebriates in institutions in the United States decreased from 3,565 on January 1, 1918, to 1,971 on January 1, 1920. On January 1, 1917, the total inebriates in institutions in this country numbered 4,891, or two and one-half times the number shown in the 1920 census.

While there are many alcoholics and drug addicts outside of institutions, the marked reduction of the number in institutions indicates that the number outside is decreasing. This conclusion is further supported by the fact that the number of alcoholic and drug cases among first admissions to the New York state hospitals for mental diseases has markedly declined in recent years.[9]

Of the alcoholic in institutions on January 1, 1920, 18.7 per cent were in Illinois; 11.8 per cent in Iowa; 10.9 per cent in Pennsylvania; 6.9 per cent in Wisconsin; 6.1 per cent in New Jersey. The remaining 45.7 per cent were scattered through thirty-three states. No alcoholics were reported from ten states.

A Failure of 1920

Through failure to adopt in the beginning an adequate plan, the government is now faced with a serious problem in the care and treatment of ex-soldiers suffering from nervous and mental disease. Although these patients represent almost one-third of all ex-service patients, and six out of every ten neuropsychiatric patients are suffering from insanity, hospital provision has been made for less than half. On December 16, over 3,000 of the 5,500 neuropsychiatric patients were scattered over the country in overcrowded state hospitals, asylums, country institutions, and hospitals maintained for private gain. During 1920 there has been a steady increase in the size of the problem (although the peak has not yet been reached), but increase of provision has been almost negligible. Comparatively few of these patients are suffering from organic brain conditions; a large proportion are suffering from benign psychoses, from which they will recover under proper treatment; others from conditions likely to become more chronic, but in which great improvement may be made and a considerable proportion of self-reliance returned—there probably has never been a more hopeful group of patients, clinically considered—but this hope is being rapidly lost through the maintenance of custody in place of treatment. This means tragedy for the ex-service man, constantly mounting costs for the government, and shame to the American people.

The failure of the government to meet this problem, for which it had ample opportunity for preparation, stands out as a source of greatest humiliation, not alone for 1920, but for a decade. The only favorable event that can be recorded is the establishment by the Bureau of War Risk Insurance, in cooperation with the board of managers of the National Military Homes, of a hospital at Marion, Ind. This hospital will eventually provide 1,000 beds and is being organized in accordance with the highest standards.

Organized Mental Hygiene

An indication of the general interest in mental hygiene is to be found in the number of states that have organized societies for active work in this field. With the recent addition of Missouri, twenty-two states now have such organizations. These state societies, besides carrying on valuable educational work, interest themselves in the passage of needed legislation and in the development of community clinics, and cooperate in the handling of mental hygiene problems with public schools, courts, social agencies, and the various organizations that care for discharged soldiers.

Organized work for mental hygiene is developing internationally. At the present time, committees have been organized in three countries besides the United States—Canada, South Africa, and France, in which a committee for mental hygiene has been instituted by the Minister of Hygiene. This French committee, composed of about forty prominent psychiatrists, psychologists, physiologists, and magistrates, has instructions to make a study of the most effective medical and social methods of organizing the prophylaxis and treatment of mental diseases.

The Canadian National Committee for Mental Hygiene is rapidly extending its activities. Appreciation of the Committee's work is evidenced by the fact that the provinces in which it has conducted surveys have already put into effect a number of its recommendations, while requests for surveys have been made by several additional provinces. The Committee now publishes, besides its *Journal of Mental Hygiene*, a *Bulletin of Mental Hygiene*, containing items of interest with regard to the activities of the Committee and the mental hygiene movement in general.

One of the 1920 contributions to the hospital care of maternity cases and children in Toledo, O. George R. Rheinffraux, architect, Toledo.

9. Pollock, Horatio M. Decline of Alcohol and Drugs as Causes of Mental Disease. Mental Hygiene, Vol. 5, January, 1921.

SURGEON GENERALS OF THE ARMY, NAVY AND PUBLIC HEALTH SERVICE

HUGH S. CUMMING, Surgeon General of the United States Public Health Service.
(Appointed January 27, 1920).

EDWARD RHODES STITT, Surgeon General of the Navy.
(Appointed November 25, 1920).

MERRITTE WEBER IRELAND, Surgeon General of the Army.
(Appointed October 4, 1918).

SOME OUTSTANDING FEATURES OF MEDICAL SOCIAL WORK IN 1920

By EDNA G. HENRY, Director of Social Service, University of Indiana, Indianapolis, Ind.

Bewildered by this new branch of service which is growing so rapidly, and making itself indispensable to medical work, hospital superintendents, doctors, and social workers, themselves, are asking its why and wherefore.

It has grown from many "whys," varying from sympathy with the misery and poverty of patients, to a desire to save money for hospitals. Its primary function, and reason for being, is to give assistance in the medical care of patients. If it works in close cooperation with the medical service, the two branches become mutually strengthened. There is a great future for medical social work, and there is also a great need for the right kind of worker.

RECENTLY, Samuel McChord Crothers insinuated that more people were interested in educational methods than in education. It also has been hinted that medical social workers just now are more interested in questions of organization and of technic than in the welfare of patients. Some committee members fear the growing interest in mere patients. They are afraid human beings will be forgotten. Superintendents of hospitals and dispensaries shiver when investigators ask whether their institutions are medical or social. The social worker, where she has succeeded in separating herself from janitor duty, finds herself in danger of joining the clerical force, the laboratory service, or of becoming twin to the x-ray machine. Upon the other hand, there are doctors who honestly foresee a dreadful day when they may be only the tail of a dog. Before they consent to any such anatomical arrangement, they at least wish to know more about the dog. From these come all of the questions now asked about the purpose, method, and machinery of medical social service.

It was Mr. Crothers, too, who made Experience say, "my pupils are always doing something or other—and it's generally wrong. They have more activity than good sense. The world is full of creatures that are doing things without asking why." Now, medical social workers have stopped doing things without asking why, even if they will not admit that they generally have done things wrong.

Medical social service was born of more than one motive. There are now two hundred and ninety-nine groups of individuals known as social service departments, as many as seventy-one in one state, with but one in others. Not only are no two alike, all are distinct types. But at least a third of them are excellent departments, and all of them are agreed upon two points—that they exist in order to further the care and cure of patients, and that their efforts must include good medical social case work.

It is this agreement upon these two points, no matter what variations exist, which has unified the new profession of medical social work. Some departments were organized because of sympathy for patients whose misery and poverty sent them to free hospitals. Some began with a desire to make efficient dispensaries, and some to save money for hospitals. One department was interested only in tuberculosis, and another in the teaching of student nurses, medical students, and social workers. Some were financed by universities, some by local committees. Others owed their existence to lodges, churches, doctors, the United States Army, or the Red Cross. In practice, no matter what the original motive, the source of income, the form of organization, or the type of worker, it was always necessary to further the care and cure of patients and to attempt case work.

This fact made possible the American Association of Hospital Social Workers, only twelve years after the creation of the first department. At the time, probably no two of the organizers were completely in accord concerning the purpose and character of medical social service. The Association was organized in May, 1918, when the National Conference of Social Work met in Kansas City, Mo. Previous to that time, there had been three general gatherings of medical social workers. Since then, there have been five meetings of the Association.

The stated object of the new Association was "to serve as an organization of intercommunication among hospital social workers, to maintain and improve standards of social work in hospitals and dispensaries, and to stimulate its intensive and extensive development."

Although not three years old, the Association has lived up to this announced purpose. It has a half-time executive secretary. It publishes a directory, a small monthly bulletin, and now has

a few pages assigned to it in the *Hospital Social Service Magazine* of New York. It has interested the majority of the best medical social workers in building up its membership; but its biggest accomplishment has been the creation within itself of a spirit of openmindedness, a power of adaptation and cooperation, and a thirst for knowledge, which makes it a remarkable group. Its tendency is at all times to act generously, without criticism, and to affiliate itself with all large movements which desire the accomplishment of any of its own purposes.

Make Survey of Medical Social Service

It was this spirit which made the Association not only willing but eager to join with the trustees of the American Hospital Association in a survey of medical social service as a phase of the activity of hospitals and dispensaries. The committee which conducted this survey comprised Michael M. Davis, Jr., as chairman, Dr. Louis B. Baldwin, Miss Ida M. Cannon, Miss Lillian Clayton, Miss Ruth V. Emerson, Dr. S. S. Goldwater, Dr. Edna G. Henry, Dr. Joseph B. Howland, Miss Mary C. Jarrett, Porter R. Lee, Dr. James A. Miller, Rev. Father John O'Grady, Fred Stein, Miss Katherine Tucker, Miss Mary E. Wadley, Dr. A. R. Warner, and Dr. Frankwood E. Williams.

The committee was fortunate in securing the services of Dr. Anna Mann Richardson. It is due to her that the committee report is one that indicates many a mile of advance for existing departments, and clear procedure for new ones about to be organized. Dr. Richardson found that although hospital social service was not yet fifteen years old, one-tenth of the hospitals of the United States had accepted it as a recognized part of their activity, and that there were about nine hundred women engaged in the work. The committee stated that in its opinion the basis of hospital social service was its relation to the medical care of the patient, and that no hospital could be regarded as possessing a social service department unless the department practiced as its primary function, giving assistance in the medical care of patients.

The survey's discussion of the education of existing social workers and the training of future ones was interesting. It did not note, however, the existence of well developed teaching in some places, nor all of the educational qualifications which workers themselves value. It did state clearly some traits which medical social workers should have: interest in people, tact, a broad education, freedom from fear, a sense of values, clear thinking power, persuasiveness, a sense of humor, good health, and mental balance. Certainly no head worker would willingly engage a person without these, and in addition, some knowledge of medical institutions, great faith in the medical profession, sociological knowledge, character, and common sense.

A hospital set in spacious grounds is St. Joseph's Hospital, Aberdeen, Wash. Beezer Bros., Seattle, Wash., architects.

Service Bureau Established

If the report of this committee, and even more the report of Dr. Richardson to the committee, could be put in the hands of all medical social workers it would make both for encouragement and for clarification. An even greater service might come, if it could be brought to the attention of three groups of hospital superintendents: those who are working with social service departments, those who desire medical social service, and those who have no use for it.

The group of medical social workers took a forward step when it assisted in the making of this survey. It took another, which in the long run may be productive of greater good, when it joined with the trustees of the American Hospital Association in establishing a service bureau on hospital social work, which should cooperate with the American Association of Hospital Social Service Workers. This Bureau is now in operation under the supervision of Miss Ida M. Cannon, who is also the president of the American Association of Hospital Social Workers.

A recent personal inquiry made of leading departments revealed a few interesting facts. There is a terrible shortage of competent workers. The general impression is that the cause is want of adequate training facilities. As a matter of fact, there is more such training offered than demanded. It is the opinion of the writer that this shortage is due to quite other reasons. For some time it has been unnecessary to take intensive and expensive training in order to find a job, only one department holding rigidly to its demand for prepared people. There is never a large group of women willing and able to spend time in learning. Then, too, while the work demands the same or a bigger type of woman than the one who suc-

ceeds in teaching or nursing, the salaries in social work are much lower than those obtainable in the other two professions. It is also true that few young women know of the field that is opening up for medical social work in the future.

Place Workers in New Fields

No departments this year have undertaken fresh activities except that some have placed workers in newly organized heart clinics, food clinics, and classes for patients with diabetes. Two departments have made special social studies of such subjects as, the non-pulmonary tuberculosis group, the osteomyelitis group, the negro patient, the nervous child, etc. Almost without exception, departments are revising their statistical methods or creating them. They are trying to make useful the mass of material collected during past years. All are trying to improve their records; one even plans to install a supervisor of records; more are assisting with the admission and discharge of patients; one is making regular ward rounds with physicians; one is taking "ward walks" with the doctor.

One children's hospital has limited its work by taking only patients with bad heart conditions, with chorea, with a need for supervision in the home, cases with tuberculosis, malnutrition cases, those needing convalescent care, selected feeding, and selected syphilis cases. Another department in a general hospital has limited its attention to children under fourteen, heart cases, typhoid fever patients, tuberculosis cases, patients with diabetes, selected venereal cases, and cases involving industrial problems.

Growing Interest in Education Shown

All departments, not only those which are teaching, show a growing interest in education: the training of their own workers; the teaching of students, and the giving of assistance to the doctor in the instruction of groups of patients. Some departments have among their workers students who have been granted scholarships. All begin to realize that they have in their hands material for the education of workers, students, patients, and communities. They are seeking ways to use this.

One of the most interesting developments is the help given by medical social service in the maintenance of clinics for well children, and of diagnostic clinics which are used by other social agencies.

Without exception, all departments are paying more attention to children and to diet problems, There is a marked growth both in the quantity and in the quality of cooperation with other agencies. Equally marked is a greater use of volunteers.

Those hospitals which draw their patients from an entire state are increasing their attention to out of town patients, widening the radius of hospital helpfulness. One has a social worker paid for by the rotary clubs of smaller towns. Several are helping to start hospital libraries, and three have had teaching which they began, taken over by the local school boards.

Medical and Social Work Interdependent

Most noteworthy was the fact that in every instance, when the department was asked what improvement had been made in its work, the answer was that the work was better because the medical service had been strengthened in this or that way.

This is not as absurd as it seems. There is nothing more remarkable than the change made in social work by better medical practice, unless it be the improvement made in the end results of the medical and surgical work of hospitals and dispensaries by good social work. The two go hand in hand. Medical social service in the fifteen years of its life has evolved slowly, through practice and experience, from a mere human and economic interest in the person compelled to receive free medical attention, to a clearer conception of its task and its opportunity. It admits that it must assist the doctor to get the patient well. It feels that it must help the patient to make the doctor see the patient's social obstacles, and the social roots of his disease. Soon the social worker will strive definitely to give the physician scientific sociological assistance, and to obtain from him that additional medical service which will diminish social problems.

The Beth Moses Hospital, Brooklyn, N. Y., which was opened in 1920, is a thoroughly modern, fireproof building. Henry J. Nurick, Brooklyn, N. Y., architect.

He who has health has hope, and he who has hope has everything.—Arabian Proverb.

PROGRESS IN THE ERADICATION OF VENEREAL DISEASE DURING 1920

By ALEC N. THOMPSON, M.D., Director, Medical Department, American Social Hygiene Association, New York City

The year 1920 was marked by real progress in the field of venereal disease control. Although little new legislation was enacted, the laws of previous years were better enforced. The educational phase, which seeks to place before the physician, the dispensary, and the hospital, the need for more prompt diagnosis and better treatment, was carried on by the national organizations, and the various local agencies. The general educational activities were increased, and treatment improved.

The year closed with the Institute on Venereal Disease Control, giving instruction to those working in the field, and the All-America Conference, seeking to formulate basic principles for further activities.

PROGRESS in the year 1920 in the control of venereal disease was largely that of correlating the advances made during the war and the post-war year 1919. The United States Public Health Service, the Interdepartmental Social Hygiene Board, and the American Social Hygiene Association cooperated in the direction of the national activities.

The laws of the previous years were more thoroughly administered, and, practically speaking, with the exception of Virginia, which passed an entirely new venereal disease law, no new legislation relating to venereal disease was enacted. Several states for the first time availed themselves of the opportunity to share in the Federal allotment by appropriating an equal sum for venereal disease control in their states.

Greater effort was made to stress that phase of educational work which places before the physician, the dispensary, and the hospital the need of more prompt diagnosis and better treatment both in private and public practice. This was done by the national organizations in close association with various local agencies interested in the problem of venereal disease control.

The general publicity and educational activities were continued and increased to a greater extent. The advertising columns and reading columns of the national weekly and monthly magazines, as well as newspapers, continued the publicity campaign in the interest of social hygiene generally and the combating of venereal disease particularly. The American people expressed their interest and welcomed true and unbiased facts regarding gonorrhea and syphilis. Many individuals asked for help, advice, and literature, which resulted in an increased number of applications for treatment at the hospitals, dispensaries, and with private physicians. That the various advertising and publicity methods were a definite value to the organized efforts of state boards of health was well demonstrated by the fact that such methods constantly increased the number of persons interested in the activities of the local and state health departments. Many letters received by state departments of health showed conclusively that the advertising and publicity effect was distinctly felt in all quarters. Many of the states introduced novel publicity methods. Some of these are enumerated:

Alabama established a unique scheme of cooperative clinics. At the close of the year 1920, Alabama had sixty of these clinics giving treatment at the nominal fee of $2.00 a visit. The physician is supplied with the necessary drugs and equipment, and is assisted in the education of the patient to the necessity of getting treatment until cured, by sending the patient a copy of the law requiring him to continue.

The city of Cleveland, through the Cleveland Hospital Council, made a hospital and health survey, which clearly demonstrated that in the average city doing a reasonably good piece of work the situation is inadequately met. Cleveland deserves credit for having frankly and fearlessly investigated itself, but deserves greater credit for having started to improve its facilities before the survey was completed. Other cities need to do the same. Some have done it in part, but much work still remains to be done.

Florida had in operation an ambulatory clinic equipped with army lockers and trunks transportable by automobile or rail. Entire mill crews had blood tests taken in this way in communities that had had no facilities before.

Indiana carried the message of venereal disease control to forty Chautauquas, and supplied pay envelope enclosures to factory employees.

Maine enlisted the aid of all social agencies.

Michigan operated stereomotographs in store windows.

Mississippi organized thirty-nine social hygiene units in as many counties. These units or-

ganized classes of illiterates, and women read to the classes concerning venereal disease, and gave them instructions about the nearest clinics.

New Jersey engaged in an extensive publicity campaign, and used for this purpose placards in street cars and large billboards along railroads and in prominent places.

South Carolina distributed hand bills showing location of clinics and giving general information about the campaign.

Tennessee and Georgia conducted intensive campaigns for negroes, issuing special pamphlets designed for the colored people. War was waged against herb doctors and conjurers, and special hygiene committees were formed to reach the negro population.

Texas ran full page advertisements in newspapers in nine large cities, telling about the venereal diseases, the necessity for treatment, and the facilities available for such treatment.

Utah undertook to extend its facilities for diagnosing and treating venereally infected employees of all railroads in the state.

West Virginia held a one week's course for physicians in diagnosing and treating the venereal diseases.

Wyoming forced out of existence the most notorious redlight district in the western frontier.

Five states quarantined by placarding, premises of venereal disease patients who were a particular menace to public health.

To reach the foreign speaking population, material was issued in many foreign languages.

At least forty states used films explaining the venereal diseases and the necessity for treatment to the laymen, and films showing modern diagnostic and treatment technics for gonorrhea and syphilis to the medical and related professions.

Trained social workers were found by those states maintaining a social service department to be great factors in educating and bringing the patient under treatment.

There was a steady increase in the number of organizations engaged in aiding in venereal disease control work. Among them are the young men's and women's associations, business clubs, labor clubs, fraternal societies, health societies, and political societies. Some of these took the initiative in starting campaigns among their own special groups.

More than 5,000 industrial concerns purchased material for venereal disease control work on the plan laid out by the United States Public Health Service in its standardized industrial program.

One industrial plant reported that a large number of its accidents are due to venereal disease. Considering, then, that in 1918 industrial accidents in the United States numbered 2,000,000, it does not require much imagination to realize how necessary it is to blot out these diseases.

In spite of the removal from toilets of Pullman cars of placards calling attention to the dangers of venereal disease, which in 1919 brought in six to seven hundred requests for information a week, not including those received direct by the state health departments, the railroads of the country did evince a great interest and desire to cooperate in the work of venereal disease control. Dr. John H. Stokes, of the Mayo Clinic, has published the result of an investigation of syphilis among railroad employees, in which he shows that syphilis is a trifle more frequent in railroad employees than in the general population. One railroad attributes four wrecks to the fact that the engineer or some other responsible person had paresis. Recognizing the seriousness of venereal disease among railroad employees, 237 railroads conferred on venereal disease control measures, affecting 4,000,000 employees. These measures include medical, safety, and educational phases.

Miners in the Middle Western states, and lumbermen in rural districts showed great interest in everything that was undertaken to enlighten them on the subject of venereal disease control, and evinced a desire to undertake treatment until cured.

Reporting of venereal disease increased throughout the country. It has been generally conceded that there has been no increase in new cases of gonorrhea. Physicians and hospitals are more and more accepting their responsibility in this regard.

Treatment in clinics and private practice improved both in quality and quantity. As one index: In 1919, 118,055 doses of arsphenamine were given through the agency of the state boards of health; in 1920, 328,382 were given. The same ratio of increase applies to laboratory work, administration of other treatments for syphilis, and the treatment of gonorrhea.

There was no increase in the number of clinics in operation during the year. Some of the wartime emergency clinics established in isolated office buildings were incorporated as integral parts of dispensaries or hospitals. In the early part of the year, 359 of the clinics in the United States were located as follows: office buildings, fifty-nine; municipal buildings, eighty-five; hospitals, one hundred and forty-two; miscellaneous, seventy-three.

The hospitals throughout the country showed greater interest in the campaign against gonorrhea and syphilis, and became more liberal in

considering the needs of the patient and the community.

The opinion of leading urologists and syphilologists that gonorrhea and syphilis should be admitted to hospitals and adequate provision be made for such admission, received increasing attention. The consensus of opinion is that, from the hospital viewpoint, gonorrhea is no more dangerous than any other suppurative, and syphilis is no more dangerous than any other systemic case; that beds, though not needed for most cases of gonorrhea and syphilis, would be the ideal condition for treatment; and that sufferers from acute and chronic complications of gonorrhea and syphilis must be hospitalized. This opinion of authoritative professional men, which in itself was evidence of the advance and success of the venereal disease control movement, had its reflection in the more liberal attitude of the hospitals.

As treatment facilities increased, the necessity for continuous expert treatment became better understood. The "advertising specialist" found his business becoming less profitable. The patent medicine and nostrum evil received its share of attention, and it is interesting to note that one or two of the most notorious of the old-time advertised remedies have ceased to be "cures," and were recommended for the prevention of venereal disease in a last attempt to secure business.

The interest of the medical profession, including private practitioner and clinic physician, increased. The medical department of the American Social Hygiene Association, in cooperation with the United States Public Health Service and state boards of health, was in correspondence with physicians throughout the entire country, in an effort to reach them with valuable reprints and other information reflecting what is the latest and best in diagnosis, treatment, maintenance of treatment, criteria of cure, clinic management, and the many other ramifications of venereal disease control. The responses were gratifying. Much interest was shown in better floor plan arrangements, equipment, more scientific procedure, etc.

Research work conducted under the direction of the Interdepartmental Social Hygiene Board was continued during the year, and thirty-six researches were carried on—two investigating chancre, fourteen studying gonorrheal infection, and twenty in relation to syphilis. These investigations are to be continued.

Perhaps the outstanding detailed investigation of the year was that conducted by the United States Public Health Service. This was a survey of the medical, legal, educational, and general cooperative measures, in force February 1, for the combating of the venereal diseases in cities with a population over 15,000. The questions asked by the investigator in the survey relating to treatment of infected persons, social service "follow-up," laboratory diagnosis, etc., were answered by the clinicians. Clinics were surveyed from the standpoint of location, equipment, methods of sterilization, methods of case recording and history taking, personnel, methods of treatment, accessibility of laboratory facilities, days and hours open for treatment of patients, daily average attendance, per capita cost, average monthly cost of operation, methods used in increasing attendance, and fee charged if any. Some of the findings were: adequate equipment in 83 per cent of the clinics; reasonably complete histories and records of treatment in 71 per cent; paid salaries in 77 per cent; fees covering cost of medicine, dressings, etc., charged in about 30 per cent. The determination of cost of operation was extremely difficult, and approximation was possible in only 56 per cent. These ranged from $0.50 to $2.00 per treatment. The year 1920, therefore, contributed the only extensive, though undoubtedly incomplete, attempt to seriously study the subject of venereal disease treatment centers.

The year 1920 closed with the Institute on Venereal Disease Control and Social Hygiene, conducted by the United States Public Health Service November 26 to December 4, and the All-America Conference on Venereal Diseases held under the auspices of the American Red Cross. In both of these epoch making meetings the United States Public Health Service, the Interdepartmental Social Hygiene Board, and the American Social Hygiene Association cooperated. The attendance at the Institute included nearly six hundred health officers, physicians, nurses, social workers, and others allied in health work for the combating of the venereal diseases; and upwards of four hundred registered for the Conference. At both meetings, with but few exceptions, every state in the Union was represented. The All-America Conference included representatives from Argentine, Brazil, Canada, Chile, Cuba, Equador, Honduras, Mexico, Paraguay, Santa Domingo, and Porto Rico. The international importance of the Conference was indicated by representation from England, from the League of Red Cross Societies, Geneva, and from Czecho-Slovakia.

The Institute, organized to give instruction upon all phases of venereal disease control for those working in the field, and the Conference, organized to formulate basic principles upon which to carry on further activities for the control of the venereal diseases, closed a year that was marked by steady gain and progress.

FORWARD STEPS IN OCCUPATIONAL THERAPY DURING 1920

By HERBERT J. HALL, M.D., President National Association for the Promotion of Occupational Therapy, Marblehead, Mass.

Occupational therapy has been given increasing recognition during the past year. Indeed, it has been found to be an indispensable link in the chain of rehabilitation. Since the war, and even before in some degree, it has been evident that adequate rehabilitation is not the sending out of a patient, cured perhaps of wounds or diseases, but totally unfit because of weakness or discouragement, to take his place immediately among competitive labor. There has long been a fatal gap, but it is now being filled by occupational therapy, which already has to its credit many complete cures, which might have been otherwise impossible. Its place is now fairly well defined and almost universally recognized.

OCCUPATIONAL therapy, defined broadly, is the science of prescribed work. The term specifically used applies to therapeutic occupations carried out during convalescence, and under medical supervision. The field is distinct and narrow, but maintains an important relationship with medicine and surgery, with vocational training, and with social service; it is in effect a link, small but indispensable in the chain of rehabilitation. Now adequate rehabilitation, the reconstruction and reinstatement of the disabled, has quite suddenly since the great war, become a matter of fully recognized importance. Even before the war, industrial accident companies and other students of the situation were beginning to realize that men and women, cured of their wounds and diseases, were not in the full sense cured, until they were able to resume some part in economic life. How might the cycle be completed? The hospitals could well assume that vocational training and placement, although rightly enough a part of the cure, were out of their province, and that the responsibility for such measures must be assumed by outside organizations. But slowly it has become evident that there is a critical point in convalescence, when the discouraged and depressed patient may start a moral and physical slump which can spoil all chances for final restitution, which can nullify any subsequent reconstructive efforts. This turning point comes often enough while the patient is still in bed, and so we find ourselves asking the hospital to meet a situation which is old in all conscience, but which until lately has been left almost wholly to chance, or to beneficent nature.

Effect of Manual Occupation

Abundant experience has shown that light manual occupation at the very beginning of convalescence has, in a surprising number of cases, a most salutary moral and physical effect. Manual occupations are used because, at such times of general weakness, any other kind of effort is impossible. The mind and the hands will work at some primitive problem in handcrafts, when a more complex educative program would be out of the question.

Occupational therapy at its best, first amuses, then actively interests the patient—the attitude of hopeless introspection is changed to one of positive, if mild and feeble, interest and progression. The theory is so divertingly simple that we may easily fall into error, and fail to realize that we are concerned with the very sources of human power, that when we encourage a discouraged man, we may be releasing a giant who might otherwise have lain bound forever.

Occupational therapy is a means to an end. Some of its proceedings may seem trivial, but they gain in importance through the opportuneness of their application. Practice in this field is not so simple as it looks. All the ingenuity in the world may not be sufficient to overcome the shiftlessness, the hopelessness, the lack of ambition, the evasion, the prejudice which stands in the way. Sometimes we may prescribe work just as we prescribe medicines or physiotherapy, and the curative activities will be taken as prescribed. More often it is necessary to amuse. Well, why not amuse—what if the dignity of the senior surgeon is upset some morning by a caricature of himself in the shape of a wooden toy? What if the weary patient should decide that perhaps after all the hospital ward is not the dullest place in the world?

Actual Physical Results Accomplished

But occupational therapy runs deeper than diversion. Actual physical results are accomplished, often with surprising ease. It is a well known fact that fear of pain sets up a conscious or unconscious resistance to the passive motions, the manipulations which are so often necessary for the restoration of function in diseased or injured

joints. Any direct attempt at exercise or motion meets with serious resistance. Even occupations, aimed at the exercise of a given member in a prescribed way, will encounter this bar to progress. But let the patient be given some purposeful task which does not fatigue him, and which only indirectly uses the injured member—it is but a question of time when, the guard removed, the cooperative action of the affected part will result in increased motion.

It is worth while to appreciate this principle of indirection and its place in occupational therapy. The same principle applies, if I mistake not, in the more subtle mental field of hebetude and depression. Direct attempt to arouse interest and ambition may fail miserably, but when the patient becomes interested in some constructive problem, some project requiring the exercise of the faculties in a new and unsuspected way, the inhibition is automatically removed, and we may see the beginning of a new interest in life, the beginning of self confidence and self respect.

We are using a system of parallels or equivalents. The old paths of progress are blocked by pain, by discouragement, by association with unhappy experiences. Occupational therapy now opens up new but parallel paths, upon which the patient travels with comparative ease until he is unconsciously accomplishing the equivalent of his old work in the world, the equivalent at least in attention, in patience, and in sustained effort. It need hardly be suggested that such a progression must often be very gradual and that it might be quite impossible under less favorable conditions than those of the hospital ward.

Occupational Therapy Recognized

What shall we say of a system of rehabilitation that expects the weakened and discouraged patient, with habits of idleness and dependence fully formed, what shall we say of a system that expects such a man to jump at once into vocational training, or worse still into competitive labor? But occupational therapy is filling this fatal gap, and to occupational therapy already may be ascribed many a complete restitution which might otherwise have been impossible.

Occupational therapy is no longer begging at the door. Its place in the hospital is fairly well defined and almost universally recognized. The system has its longest root in the state hospitals, where its value has been recognized for many years; the strongest root, though a shorter one, is in the army and Public Health Service hospitals, where enthusiastic support is given. Newer, more slender roots, are to be found in private sanatoriums, in tuberculosis, general, and children's hospitals. The last outgrowth is in the field of social service and district nursing, where suitable cases in the homes of the handicapped are being reported for action.

Significantly the occupational therapy training schools which were established during the war are being continued. We are at the beginning of a new profession for educated women. The actual work must be done for the most part by women. Feminine tact and perseverance alone can be depended upon to break down the barriers of prejudice, and to secure the cooperation of difficult patients. The schools are wisely supplementing their training in the crafts, in the theory of occupational therapy, by a considerable apprenticeship under skilled supervision in the hospitals, which are admitting these apprentices to their wards.

Societies Flourishing

The National Society for the Promotion of Occupational Therapy, which is made up of occupational aides and directors, medical men, and others broadly interested in the subject, is in a thriving condition with a rapidly increasing membership. Local and state societies are forming for the purpose of directing the occupational therapy activities in their several localities. There is a new national society of military aides with a monthly journal of its own. A good deal may be expected from this society, whose members have all seen military hospital service. They may be counted on for intelligent and powerful cooperation. This society includes physiotherapy aides. All these associations serve to speed news of progress, and their members are accessible for concerted action and influence.

An important advancement has been made in the establishment of an experimental laboratory, at Marblehead, Mass. This institution concerns itself with the study of technical problems of occupational therapy, and is particularly active in an attempt to improve design and finish in articles manufactured by hospital patients, for it is now universally conceded that the products of occupational therapy should be of a high order, for educational, therapeutic, and economic reasons. The Medical Workshop, as it is called, has been formally accepted by the National Society for the Promotion of Occupational Therapy, through the committee on research and efficiency.

Buying and Selling Bureau Started

Another landmark for the year is to be found in the establishment of an Occupational Therapy Bureau in Boston. It is, in effect, a purchasing bureau for hospital occupation supplies. The plan includes a study of the market, and the wholesale purchase of staples which can be sold at a

low price to the occupational therapy departments everywhere. There is also included a selling agency, whereby the finished products may find a suitable market.

THE MODERN HOSPITAL has taken a lively interest in occupational therapy affairs. It is enlarging and developing this department, and will include under the head of Reconstruction, the interlocking interests of occupational therapy, physiotherapy, vocational training, and placement.

Although occupational therapy at its present status represents a fairly uniform and well understood system, and can show an increasing range of satisfactory clinical results, there is a pressing need for standardization both in application and in the method of recording. If the system is to take its proper and legitimate place in the hospital world it must be able to demonstrate its usefulness in terms which will be readily understood. It is hoped that the coming year will see perfected a uniform case record, which can be attached to the clinical history, and which will show at a glance the progression of the patient. It is not easy to put into plain terms such a progression. There are so many subtle elements involved that we may never be able to reduce the record to the accuracy of a fever chart. The situation will be simplified if we make record of some common factor, such as the ability to sustain attention and effort without fatigue, using an occupation of known difficulty as a guide. It is evident that progression in this direction will be a fair index of improvement and that many other important but confusing factors may be left out of account.

Traveling Expert Needed

Here and there an exceptionally good aide is handicapped by lack of cooperation or understanding, or by an inadequate equipment. It would be very desirable if the hospitals using this method of treatment could club together in the support of a traveling expert who would go about from clinic to clinic teaching the aides themselves, bringing the latest ideas and improvements in technique and methods of teaching. There will always be good and poor aides. The successful aide is so almost instinctively, by virtue of her tact and knowledge of human nature. But the good aides would be better, and the poorer ones improved by such stimulating and informing visitations as I have suggested.

Some day the medical schools will instruct their students in this new branch of medicine, for there is no specialty which is outside the bounds of possible service, from prescribed occupations. The hospital staffs have been surprisingly tolerant and cooperative, but to many of the men, occupational therapy is welcomed and understood only as a diversional measure. It keeps the patients busy and creates a good morale in the wards. That is perhaps all that we have a right to expect at the present stage of progress. But this tolerant attitude is changing rapidly to one of full appreciation and of lively interest. The older heads in occupational therapy are quite content. They know that the principle is founded in common sense and common justice, and that it will prevail. They know, too, fortunately, that occupational therapy is not a cure-all, that it must not be applied indiscriminately and by rule of thumb. They know that extravagant claims will only retard progress. They know that hospital occupations must keep out of the way of the more important medical and surgical business of the wards, that the hospital is not a playhouse nor a workshop. For the present, they ask only for reasonable cooperation and for tolerance, while the system is finding itself and its place.

RED CROSS PLANS EXTENSIVE CAMPAIGN FOR 1921

Plans of the New York County Chapter of the Red Cross for 1921 provide for service to nearly a million persons in that city during the year, according to John S. Ellsworth, chairman. Three hundred thousand will be benefited through health work alone. Following the peace time policy of the organization, this will be largely of an educational and preventive nature, but extensive plans have also been made along curative lines.

At child health stations established in various parts of the city, hundreds of undernourished school children will receive special care under the supervision of child health specialists and trained nutrition workers. The children will report for instruction at the health stations every week. This will be supplemented by follow-up work in the homes with the parents. In addition to being brought up to normal weight, a process which takes from two to four months, the children will have all other physical ailments remedied, such as diseased tonsils and adenoids, ear and eye defects.

Important experimental work is being undertaken at one of the public schools in cooperation with the municipal health department. To show what can be accomplished through an up to date, efficient health service, the health department has installed a half-time physician and full-time nurse in the school. Ordinarily there is only one nurse for three schools. The Red Cross will operate several nutrition classes, conduct a dental clinic, and give instruction in dental hygiene at the school. In this work it will be assisted by one hundred and fifty dietitians and public health workers from Teachers' College, Columbia University.

The first extensive health information bureau in the city has been opened at Greenwich House, on the lower west side. The bureau is prepared to meet the needs of the 76,000 residents living in that district.

Oh health! health! the blessing of the rich! the riches of the poor! who can buy thee at too dear a rate, since there is no enjoying the world without thee.—Ben Jonson.

DRUG AND CHEMICAL PRICES DURING 1920

By JOHN K. THUM, Ph.M., The Lankenau Hospital, Philadelphia, Pa.

It is interesting to note the changes which have been taking place in the drug and chemical market during the past year. Some of the changes are inexplicable, such as the rise in the price of stramonium leaves and barium sulphate, for example. On the whole, however, the prices of many have declined, and out of a list of 140 much used drugs only 49 were higher in 1920 than in the previous year. Some drugs which declined in price, even in some cases to within speaking distance of the pre-war level, are carbolic acid, ammonia, citric acid, and bismuth salts. Glycerin fluctuated disconcertingly during the year; narcotic drugs soared in price, some advancing 300 per cent during the war.

In looking over prices for the past year one notices that many drugs and chemicals have declined in price. Out of a list of 140 much used drugs only forty-nine were higher than the previous year. But of these forty-nine the advance in some was most extraordinary, santonin, for instance, advancing from $50.00 to $150.00 per pound. It may be of interest to record that before the war this useful drug sold at $37.50 per pound. The plant from which this substance is obtained grows in the deserts of Turkestan, and it is probable that very little santonin has been coming to this country, because of the unsettled conditions on the other side of the world.

Just why such a common drug as stramonium leaves should advance from twenty cents to thirty-five cents a pound is hard to fathom. It is a weed that grows plentifully in this country, and ordinarily sells for eight cents. Ergot is another drug that shows a remarkable advance; in 1919 it sold for $3.25 per pound, in the year just past it had advanced to $6.00, while before the war it could be bought for seventy-five cents. As Russia is the world's greatest source of supply, its scarcity today is readily explainable.

In January of 1919 prices for acid benzoic were not given in the price lists of leading chemical manufacturers; not even that made synthetically from toluol. At the time of writing this paper the synthetic product is priced at $1.20 per pound, and no quotations are given for that made from the gum benzoin, which means that the gum benzoin is practically unobtainable. December, 1919, found the price of the acid (synthetic) at $1.45 per pound.

Boric Acid Advancing

Boric acid, a chemical which all hospitals use in considerable quantities, could be bought in January and in December, 1919 for twenty-one cents a pound. In December of this year, the price had advanced to thirty-eight cents per pound. These prices apply to the United States Pharmacopeial product. The c. p. (chemically pure) boric acid has advanced from thirty-nine cents to fifty-six cents per pound, and bearing in mind the fact that this chemical could be bought in 1914 for eight cents a pound, it can be seen that as far as this product is concerned we are a long way from pre-war prices.

The "old reliable," carbolic acid (phenol), which is in great demand by hospitals, in fact, which is so useful that a hospital could not get along without it, is getting down to near pre-war price, the latest price for the crystals in fifty-pound tins being twenty-one cents per pound.

Acetyl salicylic acid, more popularly known as "aspirin," is now selling at a fair price, being obtainable at $1.27 per pound; January, 1919, found it selling at $3.05.

Citric acid, used largely in the manufacture of solution of magnesium citrate and various effervescent salts, has dropped quite appreciably in price. In January, 1919, obtainable by the keg for $1.63 per pound, in December, 1920, it had dropped to seventy-two cents. Tartaric acid, also used in making effervescent salts, can now be bought for eighty-one cents in fifty-pound boxes, a year ago it was $1.15.

If a hospital wishes to be known as a clean institution it necessarily must use much ammonia water, which means many pounds utilized in the course of the year. As the price of this really useful article has dropped a cent a pound, it means some saving of money. Last year in carboys it cost 12 cents per pound, now it can be bought for eleven cents.

Barium sulphate, for x-ray diagnosis, for which it must be absolutely pure, which means absolute freedom from soluble barium salts, is selling at forty-one cents per pound. In January, 1919, it could be purchased for twenty-seven cents. It would be interesting to know just why there was an advance of over 50 per cent. Scarcity could hardly be the reason.

The bismuth salts, which are used quite extensively in medicine, have shown quite an appreciable decline from 1919 prices, the subcar-

bonate at the time of this writing selling for $3.86 per pound, while in 1919 it was priced at $4.60. The subnitrate of bismuth, now $3.60 per pound, sold for $4.20 last year. Present prices, however, are much above the pre-war level; the price of the subnitrate in June, 1914, having been $2.25.

Narcotic drugs, which have always been classed as "expensive drugs," actually soared in price during the war, reaching unprecedented levels. The year 1919 saw the price of heroin $20.30 an ounce; at this writing it has receded to $14.96, in June, 1914, it was obtainable at $6.70. The price of morphin sulphate in 1919 was $15.85 an ounce, it has now declined to $10.58, in June, 1914, it was quoted at $6.05. Yet, strange to say, codein sulphate, a derivative of opium, as is morphin, advanced in price in 1920, from $11.95 an ounce in 1919 to $12.78 an ounce in December, 1920. During November and December of 1918, through all of 1919, and up to April, 1920, the monthly price lists contained no quotation as to the price of cocain hydrochlorid. In the April issue it was quoted at $16.35 an ounce for the crystals, and is now selling at practically the same price; previous to the war it had been as low as $4.00 per ounce. Opium, used in the preparation of laudanum, deodorized tincture of opium, paregoric, and Dover's powder, made a considerable drop in price during the past year. In January of 1919 it was selling for $33.15 a pound, and can now be bought for $11.38. Before the war the price was $8.90 a pound.

Glycerin Fluctuated During 1920

During 1920 there was much fluctuation in the price of glycerin, which started the year at thirty-five and one-half cents a pound, advanced to thirty-nine and one-half cents, and then gradually declined until the end of 1920 saw it at thirty-one cents. The year before it sold at one time for twenty-nine cents.

The cost of alcohol, even minus the tax, which the government subtracts when the alcohol is used solely for the manufacture of ether, has advanced considerably. Naturally, this advance reflects in the price of ether. In 1919 ether in one-fourth pound cans could be bought for eighty cents a pound. If the writer remembers correctly, it was obtainable before the war for about one-half this price.

Bromids and iodids have declined appreciably in price, being almost down to pre-war level.

Of botanical drugs in general it might be said that advances have occurred all along the line. A well known jobber makes the statement that the market for these drugs has been one of extreme activity, and that prices were unstable, with a strong tendency towards a "get as much as you can" spirit. However, when one takes into account the great demand for drugs and chemicals, a demand which far exceeded the supply, readjustment is taking place along safe and sane lines. The following list of botanical drugs, with prices of the years 1914, 1919, and 1920, may be of interest:

	1914	1919	1920
Agar	$ .45	$ .80	$ .79
Balm of gilead buds	.25	1.25	1.50
Russian cantharides	2.00	2.75	3.50
Ergot	.75	3.25	6.00
Lupulin	2.25	6.00	2.00
Cascara	.08	.18	.20
Cinchona	.20	.55	.60
Sassafras	.16	.35	.48
Soap bark	.10	.21	.23
Wild cherry bark	.08	.20	.22
Cubeb berries	.38	1.40	1.50
Fish berries	.03	1.25	.26
Arnica flowers	.12	.60	.33
Insect powder	.22	.50	.95
Buchu leaves	1.40	2.00	3.75
Digitalis leaves	.08	.25	.30
Henbane leaves	.08	.65	.35
Pulsatilla herb	.30	1.50	1.50
Senna leaves	.35	.70	.80
Aletris root	.26	.60	1.00
Althea root	.22	.80	.80
Alkanet root	.06	2.25	2.50
Bloodroot	.09	.35	.30
Colchicum	.11	1.75	1.00
Gentian root	.06½	.14	.12
Ipecac root	1.45	2.75	3.25
Jalap root	.21	.50	.70
Lady slipper root	.24	.90	1.20
Licorice root	.04½	.18	.15
Musk root	.12	1.75	2.00
Orris root	.75	2.00	1.25
Rhubarb root	.16	1.75	1.25
Senega root	.50	1.75	2.50
White squill root	.04½	.12	.12
Valerian root	.07	.70	.35
Colchicum seed	.20	2.50	2.25
Strophanthus seed	.40	1.70	1.70
Quince seed	.50	1.15	1.00
Sun flower seed	.04	.22	.12
Worm seed, Levant	.46	.70	1.20
Podophyllin	3.00	6.50	14.00
Quinin	.26	.80	.90
Thymol	3.00	7.00	14.00
Socotrine aloes	.22	1.00	.75
Saccharin	1.15	3.75	3.75
Menthol	2.95	6.50	11.50
Gum asafetida	.25	4.50	3.25
Camphor	.44	1.50	3.75
Gamboge	.60	2.00	1.80
Guaiac	.27	1.10	.85
Mastic	.22	1.15	.80
Myrrh	.16	.90	.80
Styrax, artificial	.18	1.65	1.10
Gum tragacanth	1.20	3.50	5.10
Oil coriander	7.00	60.00	40.00
Oil mustard	1.25	10.75	8.00
Oil cloves	1.00	2.25	3.65
Oil peppermint	2.75	10.00	8.00
Oil sandalwood	4.65	11.25	11.25
Oil rose	10.00	22.00	16.00
Oil sweet birch	1.45	5.50	5.85

These prices are for pound lots with the exception of quinin, which is always sold in ounce quantities.

If a man can write a better book, preach a better sermon, or make a better mouse-trap than his neighbor, though he build his house in the woods, the world will make a beaten pathway to his den.—Emerson.

HIGH LIGHTS OF 1920 IN THE HOSPITAL FIELD

January 9—Major Christian R. Holmes, for many years superintendent of the Cincinnati General Hospital and prominent in medical education, died.

January 31—Public Health Committee of New York Association of Medicine issued report on survey of New York dispensary situation.

February 21—Conference on Hospital Social Service held in New York on invitation of the Rockefeller Foundation.

February 27—Conference on training of hospital superintendents called by the Rockefeller Foundation, for the purpose of considering the question of training hospital superintendents.

March 3—The American Conference on Hospital Service held meeting in Chicago.

March 9—Dr. Hugh S. Cumming appointed Surgeon General of the United States Public Health Service, to succeed Dr. Rupert Blue.

April 17—Utah Hospital Association organized.

April 22—American Sanatorium Association adopted final report of its committee on standardization of sanatoriums.

April 26—American Medical Association held its seventy-first annual meeting at New Orleans.

April 29—Sir Henry Burdett of London, founder and editor of *The Hospital*, and *Nursing Mirror and Midwives Journal*, as well as *Burdett Hospital and Charities*, and *The Year Book of Philanthropy and Hospital Annuals*, died.

May 1—American Hospital Association moved its headquarters from Cleveland, Ohio to Chicago, Ill.

May 1—Modern Hospital Publishing Company moved into its new headquarters, 22 East Ontario Street, Chicago, Ill.

May 1—The American College of Surgeons moved into its new administration home at the corner of Cass and Ohio Streets, Chicago, Ill. The building was a gift to the college by the citizens of Chicago.

May 14—The one hundredth anniversary of the birth of Florence Nightingale celebrated the country over.

May 19—Oklahoma State Hospital Association met at Oklahoma City, Okla.

June 2—Connecticut Hospital Association held first annual meeting at Hartford Hospital, Hartford, Conn.

June 22—Catholic Hospital Association of United States and Canada held fifth annual convention at St. Paul, Minn.

June 29—Ohio Hospital Association became first geographical section of the American Hospital Association.

July 4—Major General William Crawford Gorgas, former Surgeon General of the United States Army, died.

September 1—Modern Hospital Publishing Company announced plan to issue series of handbooks on hospitals and allied subjects.

September 16—Wisconsin Hospital Association held first annual meeting.

October 4-8—American Hospital Association held its twenty-second annual convention at Montreal.

October 7—The American Conference on Hospital Service held its second annual meeting at Montreal in conjunction with the annual meeting of the American Hospital Association.

October 11—The American College of Surgeons issued approved list of hospitals of one hundred beds and over in the United States and Canada.

October 25—American Dietetic Association held its third annual meeting in New York City.

November 15—Wisconsin Hospital Association accepted as geographical section of the American Hospital Association.

November 15—Southern Hospital Association organized as auxiliary of Southern Medical Association.

November 16—Manitoba Hospital Association organized.

December 7—Michigan Hospital Association passed resolution requesting membership in the American Hospital Association.

December 20—Cleveland Hospital Council issued report on its hospital and health survey of Cleveland.

December 31—Mr. John G. Bowman resigned as director of the American College of Surgeons to become chancellor of the University of Pittsburgh.

"CERTIFIED" WATER

Within the last twelve months the danger to railway travelers of infection with typhoid fever, dysentery, and other water-borne diseases has been reduced to a minimum throughout the greater part of the country by the cooperation of the United States Public Health Service with the different state boards of health in the testing of the water used on railway trains for drinking and cooking. And, within the next few months, similar protection will be afforded to passengers on river and lake steamers, and on ocean steamships sailing from American ports. This will tend to end the severe outbreaks of typhoid fever that have from time to time been traced to ships (especially to excursion boats), as well as to the probably more numerous but far less easily traced illnesses of railway travelers from similar pollution.

"The work," said Surgeon General Cumming, of the United States Public Health Service, "was really begun in June of last year, when at the convention of state and territorial health officers, in session at Washington, D. C., a plan was decided upon whereby the Service was to cooperate with the states in reducing typhoid fever either by sending them sanitary engineers to investigate their water supplies or by helping them to organize state divisions of sanitary engineering to look after the work.

"Work has since been done in nearly half the states of the Union, in many of which sanitary divisions were lacking. In nearly all of these such bodies have been or are now being organized; and in about half of them surveys have been made of many or all important water supplies, most of which have been found safe for use on trains. Periodic inspection is, however, of course, invariably necessary.

"In carrying out this work the Public Health Service has grouped the states east of the Mississippi river into four districts, and it will group those west of the Mississippi into five other districts as soon as may be practicable. Each district will be provided with a sanitary engineer from the Service, who will render aid to the state sanitary officers in his group when they request it.

"In the Great Lakes division," resumed Dr. Cumming, "the work is a little different, for at present it has to do with the investigation of the sources and the handling of water supplies for vessels on the lakes. It is believed that the information obtained will permit us to frame regulations to govern the water supply of all vessels on American lakes and rivers, or sailing from American sea ports."

LEADERS OF THE THREE NATIONAL NURSING ORGANIZATIONS

MISS CLARA D. NOYES, R.N., President, American Nurses' Association.

MISS ANNA C. JAMME, R.N., President, National League of Nursing Education.

MISS EDNA L. FOLEY, R.N., President, National Organization for Public Health Nursing.

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BUILD HOSPITALS NOW

MR. CARL A. ERIKSON of Richard E. Schmidt, Garden and Martin, architects, Chicago, Ill., in his article on Hospital Building Activities in 1920 and 1921 (p. 213), advises hospitals who contemplate additional construction to let their contracts immediately. This is sound advice, and is corroborated by statements received by us from a number of responsible building construction companies, construction engineers and hospital architects.

Building costs have been declining since the spring of 1920. The building material index for wholesale prices for December, for example, as compiled by the United States Department of Labor—the latest published figures available at this writing—show a recession of eight points from the November figures. Further declines in the cost of some materials will undoubtedly come, but the cost of the majority of materials has reached a low point and compares favorably with the cost immediately before the war. With rare exceptions, those who deal in building materials and supplies are prepared to meet present demands. Stocks at the west coast saw mills, for example, are about 15 per cent above normal. Cars are plentiful at the present time and the railroads are eagerly seeking business. Labor is available and on the whole is producing efficiently. There is daily increasing evidence that the cost of labor, an important factor in all construction work, is also going down. Contractors are more eager for business than they have been at any time since 1914. The material manufacturers are making every effort to open the building industry, and some of the leaders, in fact, are advocating a reduction in prices, below cost if necessary, in order to get the ball to rolling. The outlook for such a revival by the middle of the year, and certainly by the latter part of the year, is excellent. When this revival does get under way there will, of course, be a great amount of building other than hospital construction. The greater demand for building material will in turn increase prices again and produce less favorable conditions than now exist, both as to supply of material and the availability of labor. Hospital authorities, therefore, who contemplate construction work, whether of new hospitals or additions to already existing ones, and who have the funds available, will do well to proceed with full speed with their plans, in order to take advantage of the buyer's market and the abundant supply of labor by getting work started now. Moreover, they will have the advantage of better terms and more undivided attention than those who wait until the boom is in full swing. To refrain from letting contracts for hospital construction on a declining market such as now exists, waiting for a still lower price, is clearly unwise and may result in paying more than the bottom price as a penalty for procrastination. Unless those who contemplate hospital construction wish their projects to be thrown into a period of a great volume of building work during the latter half of this year and the year 1922, they should take steps to let their contracts immediately.

DETECTING IMPURE CANNED FOODS

AT RARE intervals there come to our attention instances of sickness, and even death, alleged to be due to impurities in canned goods, the last instance being that of the death of four persons in Grand Rapids, Mich., said to have resulted from eating tainted canned spinach.

Billions of cans of food in perfect condition are sold each year, and instances of this sort, while regrettable, should not cause undue alarm. They should, however, lead consumers, particularly hospitals, to inspect all food carefully whether canned or not before it is prepared for the table. Hospitals can never escape the duty of carefully inspecting all their foods, for while most jobbers are conscientious in checking over shipments and throwing out the few defective cans, protection

from impurities in canned food rests largely with the consumer. The container will almost invariably show whether its contents are impure. In such cases the cans usually bulge at the end. In the parlance of the trade this is called "swelling" and is easily detected. Now and again defective cans can be picked out by leakage. Should these signs fail, the odor and taste of the food itself will give unmistakable warning. Canned foods are much more easily inspected than other foods because their decomposition is not only shown by the condition of the can, but by the odor of its contents which is much more pronounced than the odor of decomposed open foods.

THE GRADUATE NURSE IN THE CAMPAIGN FOR PUPIL NURSES

THE returns on a questionnaire sent recently to all the pupil nurses in the state of Michigan brought out an interesting fact, namely, that 50 per cent of the pupils had taken up nursing because their attention had been called to it by graduate nurses, physicians or friends, and that the other 50 per cent had taken it up through a natural desire for the work. This would seem to indicate that in the campaign now being conducted throughout the country to increase the enrollment of pupil nurses, graduate nurses have an important rôle to play. That they will do what they can in this campaign, as they have in the past, goes without saying, but the degree of enthusiasm they put into the effort will depend to no small degree on what the hospitals with which they are connected have done, or show a disposition to do, to give pupil nurses appropriate living and working conditions and the thoroughgoing training which they have a right to expect.

GIVING THE HOSPITAL PUBLICITY

EVERY now and again we have urged superintendents of hospitals and members of their boards of trustees to develop a news sense with reference to their institution and let the community they serve know more about their work. Further testimony of the desirability of this procedure was given at a recent meeting of the Michigan Hospital Association, when former United States Senator William Alden Smith told the delegates that they were too modest in presenting their cause to the public.

The first duty of the hospital is, of course, to give the sick efficient care, but it can ill afford to neglect any opportunity to make its work known to the general public. The public needs to know about the work and plans of the hospital if its interest is to be sustained. The alert superintendent will see many opportunities to keep the public informed of its work. This can be done through brief, attractive, readable, annual reports, through news items sent now and again to the local papers, through a four to eight page monthly pamphlet or magazine, as well as through other channels. Not infrequently financial campaigns offer excellent opportunities for informing the people about the work of the hospital. The United Hospital Fund of New York, for example, in its financial campaign this year on behalf of the fifty-five hospitals that comprise its membership, issued popular news items under captions such as these: Greater New York Hospital Lead London and Berlin; When It Pays to Be Sick; Prolong Human Life; Poor Receive More Hospital Care Than Rich; How Long Do the Sick Stay in Hospitals?

Every superintendent should know something about publicity work and apply his knowledge in the interest of his institution. Whether your light be one candle power or one thousand, let it shine before men, that they may see your good work and give it the moral and financial support it merits.

LOOK BEFORE YOU LEAP

IN FAR off South Africa the daughter of a local judge was admitted to a hospital for appendectomy. The operation was successful; the parents were appreciative of the care given their daughter by the hospital and showed it by sending a card of thanks and gifts for the matron. Four weeks later the girl died, so far as could be determined, from paratyphoid, or septic influenza. The girl's father then accused the hospital of being responsible for her death, contending she had contracted the disease while there, due to the hospital's failure to observe ordinary sanitary arrangements. Whereupon the board of trustees, without making any inquiry whatsoever or conferring with the matron, or without informing her of what was going on, passed a resolution calling on the house surgeon and the matron to take steps to make the repetition of such an incident impossible, thereby virtually acknowledging the father's accusation as true, and accusing the matron, a woman who had rendered the hospital twenty-one years of faithful service, of criminal negligence.

The resolution was published in the daily papers and the girl's father addressed an open letter to the newspapers, advising relatives and parents to go to the hospital themselves to see that its affairs were properly conducted, and advised parents to refrain from sending their children. Not until this open letter was published did the board

realize what a mistake they had made. This is a situation that might arise in any hospital and we cite it as a warning to boards of trustees not to accept accusations made against responsible officials of their hospitals at their face value, but to make diligent inquiry as to their truth. Much injustice can thereby be avoided and the discipline of the hospital will not be undermined.

This particular board, after it awoke to the realization of its mistake, conducted a belated inquiry to determine whether the father's accusation represented the facts in the case, whether the deductions were correct, whether his daughter's death could be fairly traced to an infection received at the hospital, and whether the matron could have done any more than she did in what was considered to be a notoriously inadequate building.

This board, moreover, was urged to rescind its first resolution and make its action public. Meanwhile, however, the matron occupied an untenable position and endured uncalled for suffering, which a little care might easily have avoided.

UNDER ONE ROOF

IF the American Hospital Association continues to grow as rapidly as it has in recent years the trustees will shortly be faced with the problem of deciding for the auditorium type of convention as against the hotel type. However, much such a change may be regretted by some, the growth of the Association will make it inevitable. For the immediate present, however, the hotel auditorium space is still adequate and the West Baden Springs Hotel, located far from the distractions of a large city, will make it possible for the members of the Association to gather under a single roof as one big family and enjoy the good fellowship that such an environment fosters.

TAKES UNAUTHORIZED PICTURES

We have just been informed by the superintendent of a Philadelphia hospital that a photographer claiming to represent THE MODERN HOSPITAL called at his institution and took several interior and exterior views. This photographer acted under no authorization from us. Only now and then do we authorize a photographer to take pictures of a hospital and then only after an understanding with the hospital where the pictures are to be taken. Hospitals are, therefore, cautioned to deny any photographer who claims to represent THE MODERN HOSPITAL the privilege of taking pictures of their institutions unless he presents unmistakably authentic credentials.

RESUME SERIES IN APRIL

SINCE much of the space in this issue is devoted to articles reviewing activities in the hospital field during 1920, it has been necessary to omit articles in the two series now running on the hospital laundry and the hospital kitchen. These series will be resumed with the April issue.

ROCKEFELLER FOUNDATION AIDS PROGRESS OF MEDICINE IN CHINA

Dr. Henry S. Houghton has been appointed director of the Peking Union Medical College. Dr. Houghton, a graduate of the Ohio State University and of the Johns Hopkins Medical School, has spent the greater part of the past fifteen years in China, where he has served as physician of the WuHu General Hospital, as dean and professor of tropical medicine of the Harvard Medical School of China in Shanghai, and recently as a member of the staff of the China Medical Board and Peking Union Medical College in Peking.

The China Medical Board of the Rockefeller Foundation, in seeking to aid western medicine in China, recognizes these essentials: pre-medical education, undergraduate courses for physicians, graduate study for investigators, laboratory workers, teachers and clinical specialists, short courses for private practitioners and missionary doctors both foreign and Chinese, medical research, especially in Far Eastern problems, standardized hospitals, education of the public in modern medicine and public health, and the fostering of professional ethics through the development of character and idealism.

These aims are chiefly furthered through the Peking Union Medical College, controlled by a board of trustees chosen by the Rockefeller Foundation and by six cooperating missionary societies. In 1916 the plant formerly conducted by these societies was purchased, more land added, and a complete, modern, fireproof medical school and 250-bed hospital erected, the old buildings being used for laboratories and lecture rooms of the pre-medical department. The exteriors are in classic Chinese architecture.

Women are admitted to the pre-medical school and to medical courses on equal terms with men, and to thorough courses in nursing. The resources of the hospital and school are at the disposal of medical missionaries and other doctors who wish to keep abreast of the times.

The board of trustees includes the following members appointed by the Rockefeller Foundation: Dr. William H. Welch, of Johns Hopkins University; Dr. Simon Flexner, of the Rockefeller Institute for Medical Research; Professor Paul Monroe, of Teachers College, Columbia; Dr. John R. Mott, of the International Committee, Y. M. C. A.; and Dr. George E. Vincent, Dr. Wallace Buttrick, and Mr. Robert H. Kirk, of the Rockefeller Foundation.

It also includes the following representatives of the missionary societies which conducted the earlier school in Peking: Mr. F. H. Hawkins, London Missionary Society; Mr. James Christie Reid, Medical Missionary Association of London; Dr. James L. Barton, American Board of Commissioners for Foreign Missions; Mr. J. Auriol Armitage, Society for the Propagation of the Gospel in Foreign Parts; Dr. Frank Mason North, Board of Foreign Missions of the Methodist Episcopal Church; Dr. Arthur J. Brown, Board of Foreign Missions of the Presbyterian Church in the United States of America. Mr. Edwin R. Embree, secretary of the Rockefeller Foundation, is secretary and executive officer of the board of trustees.

DECORATING TRAYS FOR SPECIAL OCCASIONS

By MARGARET HOOKER, Domestic Science Instructor, State School for Girls, Adrian, Mich.

VARIETY can be given to hospital tray service with the changing of seasons and the coming of different holidays.

With the spring comes Easter and all its dainty colorings. The color scheme for this season seems to be yellow, purple, and green. Fortunately, at this time come the crocus and hyacinth, which are of lavender coloring. There are many attractive dishes that can be made up with the Easter time coloring. Eggs, which usually are the greatest necessity for the invalid, can be used in so

An appropriate Easter breakfast tray.

many ways in which the yellow color scheme will be introduced. Creamed spinach with poached eggs, makes a good meat substitute for luncheon. There are so many egg salads, "artistic cookery" certainly can be brought out here with the golden salad dressings and the green lettuce, chicory, or watercress for garnishes. There is always gelatine, which can be used in desserts and salads. Its transparency lends charm to fruits and vegetables with which it has been prepared. Even the butter can be shaped very easily like an Easter lily. Be careful not to overload the tray with too many flowers, which one may be inclined to do at this time of year when there are wild flowers in abundance. One or two daffodils on the tray, however, will add to its attractiveness. Heavily scented flowers on the tray should be used with care, for there may be some objection to having them in the room.

The hardest time for a person to be confined to his bed is during the summer months. It is an understood fact that at all times everything is done to keep the patient comfortable, but particular pains are usually taken in the warm season to keep the sick room as cool and attractive as possible. However, the greatest help toward keeping the patient contented is in the serving of cool and appetizing meals. If permissible, cold and tempting beverages, or perhaps an ice between meals, will reinforce the coolness of the atmosphere.

This will make the patient think he is enjoying a regular out-door picnic.

It is becoming more popular every year now to have a sane Fourth of July, celebrated by a picnic. Assure the patient that he will have his usual picnic on that date, this will tend to arouse his curiosity. Then when it is time for luncheon or supper, set the tray to resemble as nearly as possible that of a picnic spread. Use crepe paper napkins and tray cloths decorated with flags, also paper or wooden plates, and paper drinking cups. Have very little silverware, if any, on the tray. The menu should correspond to that of an ordinary picnic, serve nothing that could not be served out of doors, fancy salads and desserts, and, if advisable, ice cream cones. This way of serving will add variety and can be practised any time during the summer months.

The Thanksgiving season presents various ways for changing the ordinary daily routine. The patient, of course, cannot be allowed to feast in the usual way. However, such foods as are compatible with the season can be served. The tray decorations may be in fall colors, warm yellows, browns, and reds. This is the season for the chrysanthemum, but it is difficult to place a flower of this kind on a tray, as its beauty is appreciated much more at a distance. Thanksgiving favors can always be obtained in the shops if one wishes to go to that expense.

A pretty arrangement for a luncheon tray.

An appropriate "tray favor" is the Indian wigwam, which can be manufactured very easily with a piece of brown cloth and three sticks fastened together at the top. If fruit is served, it may be arranged on the tray with little or no preparation, as this season represents the year's harvest.

In February there are three holidays, Valentine's Day, and Lincoln's and Washington's birthdays. Red seems to be the favored color for Valentine's Day; usually there are many salads and desserts that can be carried out in this color; gelatine molds and cookies in heart shapes,

and butter fashioned in the shape of a heart also help to suggest the season. Valentines can be brought in on the tray and, if permissible, may be exchanged among the patients. This seems very trivial, but it really aids in making the day more cheerful to the patient. The decorations for the Lincoln tray could be a miniature log cabin, and cherries are appropriate for Washington.

Hallowe'en is a day that always needs some "trimming." The tray can be arranged mysteriously, and the food cooked in an unusual way, for instance, potatoes to look as if they were baked but really containing some other food, and "poached peaches" which resemble poached eggs for dessert. Place a small jack o' lantern or black cat on the tray for decoration. Tell the patient to look for his past and future under his plate, where he will find his fortune written out on a piece of Hallowe'en decorated paper. These little touches of thoughtfulness will no doubt be appreciated by the patients.

ST. THOMAS HOSPITAL CARES FOR EYE, EAR, NOSE, AND THROAT PATIENTS

AN INNOVATION at St. Thomas Hospital, Nashville, Tenn., is the establishment of an eye, ear, nose, and throat department. The surgeons in charge of this department are Drs. M. M. Cullom and Hilliard Wood. Dr. Robert Sullivan, who had charge of the eye, ear, nose, and throat service of a hospital unit overseas, is assistant surgeon on the service of Dr. Wood; and Dr. Frederick E. Hasty, who has just finished as house surgeon a two years service on the house staff of the Manhattan Eye and Ear Hospital, is assistant surgeon on the service of Dr. Cullom.

The department is, in effect, an eye, ear, nose, and throat hospital within the organization of St. Thomas Hospital. One entire floor is given up to eye, ear, nose, and throat patients. A graduate nurse is in charge, with a corps of assistants. One of the interns who expects to devote himself to that work is assigned to that service. Two specially equipped operating rooms are assigned to the surgeons who have charge of the department, and they are given a free hand to furnish the rooms with whatever equipment they desire. There are special operating tables for bronchoscopic work, operating chairs, extension stands for the use of reflected light, a dark room for transillumination and ophthalmoscopic work, a special room for reception and examination of patients, and in fact all the conveniences and aids to the refinement of technic that can be found in any eye, ear, nose, and throat hospital.

Why does the hospital management go to this trouble and expense to equip a hospital within a hospital? First, the importance of the work of the eye, ear, nose, and throat surgeon is rapidly growing. The theory of focal infection has opened up new vistas and has brought the work of the nose and throat surgeon in contact with every field of medicine. This is sufficient reason why the work of the eye, ear, nose, and throat surgeon should receive every favorable consideration; but there are other considerations. The staff of St. Thomas are live, progressive men and they are constantly striving to keep abreast of advances in the field of medicine. They know that favorable working conditions in a hospital are an inspiration and stimulate men to their best efforts. This is especially true of the work of the eye, ear, nose, and throat specialists. Their work is delicate and after-treatment is of great importance. A brilliant operation that promises to restore sight to a blind eye can be easily ruined by lack of attention to details. What the eye, ear, nose, and throat surgeon needs is a corps of trained assistants in the operating room where everything goes with smooth and clocklike precision, due to intelligent teamwork. A need of equal importance is a specially trained intern, with a corps of nurses who have had special training to carry out the after-treatment. This is the ideal for which St. Thomas is striving in this department. How different is the result that usually attends when patients are scattered haphazard through a general hospital. They are under the care of interns and nurses who have had no training in the care of eye, ear, nose, and throat patients, and consequently know nothing about the delicate procedures necessary to a successful after-treatment of such cases. But what is more, they have no interest in such work, and what they do is for the most part perfunctory.

Where the patients are segregated on one floor under the charge of a head nurse with special training, with a special intern, a corps of nurses can be given special

A separate room for the examination of patients helps to give the department all the conveniences of a special hospital.

Laboratory technique can be developed with care and thoroughness when favorable working conditions are provided.

training and an organization built up that makes for thoroughness and efficiency and gives the department advantages even over a hospital devoted entirely to eye, ear, nose, and throat work. The advantages a special department has over a special hospital is the access to the splendidly equipped laboratory which is a part and parcel of a modern general hospital. The x-ray department is also a great asset, as well as the carefully worked out system of records. A special hospital, unless on a very large scale, could not maintain these departments in the degree of efficiency which is necessary to a general hospital. Then, too, the contact with the keen, alert men who are working in the departments of surgery, medicine, pediatrics, laboratory technic, etc., is decidedly stimulating and broadening and prevents that restricted field of vision which is the danger to workers who come in contact only with men in their own line.

Specially equipped operating rooms and a corps of assistants are given to the surgeons who have charge of the eye, ear, nose and throat department.

Recognizing the impossibility of getting special service in a general hospital as ordinarily conducted, the hospital management has spared no pains or expense to equip this department in the most satisfactory manner. The advantages which the hospital expects to derive are a broader training for its interns and nurses, and more efficient and highly specialized service for its patients. In other words, the department is an effort to bring the hospital that much nearer the ideal standard of efficient service.

Partly because of lack of hospital facilities and partly because of lack of education on the part of the public, many operations of this character have been performed in the homes of the patients and in physicians' offices. Needless to say, under such conditions it is impossible to maintain the chain of asepsis such as can be maintained in a well appointed hospital. There is a certain risk, too, in moving general anesthetic cases, as is necessary when operations are performed in physicians' offices. The public is beginning to learn what the profession has always known, that the best and most favorable conditions with which operative cases can be surrounded are not too good.

The results to be attained are too important to allow any considerations of economy to stand in the way; and whatever aids science can offer, the hospital management feel it their duty to take advantage of.

HOSPITAL SUPERINTENDENTS AND PUBLIC HEALTH

By I. R. FALCONER, R.N., Vashon, Wash.

IT IS frequently stated, and not without some grounds, that superintendents and other hospital workers tend to become "institutionalized." In other words, to lose sight of the human side of their work, to get into a rut, and see from only one point of view—and that, not the patients'.

In view of the fact that, as a class, superintendents (especially of small hospitals) are very much overburdened, it is not strange that they find it difficult to attend the various meetings and do the reading necessary to keep up on questions of the day.

Dr. Devine, in a recent lecture to the University of Washington students, told the story of a man who was pinned down in a railroad wreck. He was finally approached by the colored porter, who said, "Now, boss, if you'll jes' hump yoself and not *spread* yoself, I think I can get you out."

I am sure that most superintendents find "humping instead of spreading" the only way to get through the day's work, and it is therefore not strange if they tend to become more or less narrow.

To combat this tendency there is no better way than to spend a few months in the study of public health nursing, learning the conditions of the life of our citizens and the possibilities for bettering them. When we consider the recent origin of public health nursing,—hospital social service is not yet fifteen years old—we marvel at what has already been accomplished in that line.

The old fashioned family physician (whatever his shortcomings) had this advantage over the staff of a modern hospital,—he knew his patient as a human being, not simply as a case. He knew the moral as well as physical tendencies of the family. He knew that the remedy for Mrs. Jones' indigestion was not nux and gentian, but a straight from the shoulder temperance talk with her husband. The day has gone by when business meant merely making money. More and more are we learning that all human beings are "jes' folks."

In every way a knowledge of public health nursing is of great advantage to the superintendent, in her dealings with her board of managers, with the patients, the public, and the employees.

Welfare Agencies and Hospitals Must Cooperate

The necessity for cooperation between the hospital and other welfare agencies cannot be too greatly emphasized.

In her work with the board of managers, the superintendent will frequently have occasion to report cases which for one reason or another are not suitable for the particular hospital. Thus if the hospital is a general one (and we assume that it is), cases proving to be chronic, mental, or tuberculous must have some other provision made for them. Charity cases of various kinds must also be brought before the board. In these various contingencies, it is fortunate for all concerned if the superintendent knows just what can be done in the way of obtaining charity care, and can put the family in touch with the necessary institution or agency.

Many times the recovery of patients in the hospital is retarded by worry over needy or dependent ones at home. In her contact with these patients, the superintendent often learns these conditions, which are unknown to the doctor, and with her knowledge of public health work, can put the family in touch with the necessary agency, and thereby hasten the patient's recovery.

Many times I have found employees unable to do their best work because of worry over family conditions. Possibly a feeble-minded, delinquent, or physically defective child may be the source of anxiety. By being able to help solve this problem, the superintendent is able to retain a valuable employee whom she would otherwise lose, besides working an untold amount of good to the individual,—perhaps making a useful citizen of one who, without supervision, would become a criminal or a public charge.

In her dealings with the public, the superintendent will many times be asked to take patients who are not suitable for her particular institution. In my own experience, as superintendent of a general hospital, I was many times asked to take patients who needed a home, rather than hospital care. By knowing something of their nationality, economic, social, and moral, as well as physical condition, the superintendent can refer these cases to the proper agency.

Hospitals are continually receiving calls from people who wish a baby for adoption. When there are none available in the institution, the superintendent may, by keeping in touch with the various children's agencies, be able to tell the would-be foster parents where to look for the particular brand of baby which they desire.

In caring for Red Cross, court, and accident cases, it is necessary to know something of the policies of the Red Cross, something of court procedure, and of the work of the police department.

Many Avenues Open to Graduate Nurses

It is of prime importance that the superintendent of nurses be able to give to her pupils an interest in and an enthusiasm for some of the many, many avenues now open to the graduate nurse. It goes without saying that without first having an adequate knowledge of the subject she cannot have the necessary inspiration to pass on to her pupils.

While, with the now overcrowded curriculum, it is impossible to include a thorough course in public health nursing in the training school, it is possible to give, in a course of lectures, a general idea of the work. This general idea will enable any nurse to decide whether or not she wishes to take the special training in public health nursing. The field is so broad and the number of workers so few, that the few months given in special preparation is time well spent.

In an article in the *American Journal of Nursing* (1914), Miss Elizabeth Golding says that in going over a list of eight hundred graduate nurses, the following occupations were represented:

Superintendents of hospitals.
Superintendents of training schools.
Superintendents of clubs.
Social service workers.
Settlement workers.
School nurses
T. B. nurses.
District nurses.
Nurses in cripple schools.
Nurses in operating rooms.
Nurses in offices.
Nurses in stores.
Business managers.
Housekeepers.
Resident nurse in boarding school.
Chaperon for parish workers.
Deaconesses.
Missionaries.
Red Cross.
State inspector of training schools.
Professor of teachers' college.
Physicians.
Dietitians.
Bacteriologists.
Registrars.
Teachers of various kinds (dancing included).
Married.
At home.
Private nurses.

In addition to these, several others may be mentioned: Miss McCalmont made a place for herself as "hospital specialist," her work being the remodeling of hospital boards and buildings; fire inspector and police officer may also be added to the list; teachers of deep breathing and physical culture; deputy medical inspectors; x-ray, laboratory, and industrial nurses. These make, in all, a list of about forty different avenues from which the nurse may choose.

General Training Precedes Specialized Work

The field is large, therefore, as compared with that of former times when only about three avenues were open to the graduate—private nursing, institutional work, and matrimony. This is the day of specialization, but in order to specialize, it is necessary, first of all, to have a good general training and become a registered nurse. Then it is wise to take up whatever particular line seems best adapted to the individual's tastes. This will usually be the work for which she has a special liking.

The short time spent in post-graduate work is time well spent, if for no other reason than for the breadth of view obtained. Superintendents are frequently asked by pupils: "Does it pay, after three years of training, to put in additional time without remuneration?" I always advise the special work, when possible, as the sooner it is taken up after graduation, the easier it is. It is more difficult to study after being out of school for some time, and it is harder to get away from private or institutional work after having become established in it. Many times the nurse feels that she must do a little work first, in order to have sufficient funds to take up special work. In such cases, it is well if she keeps her public health nursing course in mind and avails herself of the first opportunity of taking it. By so doing, she will not be so apt to stay in a rut.

My superintendent once told me of a man who prayed every day, "Oh, Lord, deliver me from a rut." I think it would be well if all nurses, and especially superintendents of nurses, followed his example and then set about helping the Lord accomplish the result.

NEW PUBLIC HEALTH SERVICE FILM

A new motion picture film prepared at the instance of the United States Public Health Service vividly presents the life history of the mosquito, especially of the kind that transmits malaria germs and costs the people of the United States about $200,000 a year by so doing. Part of the film is "animated" and part taken from actual life; all of it is lifelike. Most realistic are the views showing how the female mosquito absorbs the malaria germs with the blood of a malaria patient; how the germs increase and multiply and pervade the salivary glands of the mosquito; and how the mosquito passes them on to the nearest innocent bystander, who promptly falls ill with the disease. The film was exhibited for the first time at the meeting of the Southern Medical Association at Louisville, Ky., November 15 to 18.

Parole System Should Be Extended

The New York State Hospital Commission reports that provision in the state for 900 more insane patients should be made each year. At present there are 35,736 patients in the hospitals, with 2,377 on parole. The commission believes that by an extension of the system of clinics and the employment of more social workers, the state may be relieved of some of its burden, for more patients can be placed on parole if they can have careful supervision.

BUDGET FOR TUBERCULOSIS HOSPITAL OR SANATORIUM

By STANLEY L. WANG, M.D., New York

THE budget of a tuberculosis institution should be a simple statement of the receipts and expenditures for the previous year, and a similar statement of the desired receipts and the proposed expenditures for the coming year. Concise information regarding the reasons for increases or decreases of the amounts in the proposed budget should accompany it. Where funds have been transferred from one division of the budget to another, during the previous year, supporting reasons should be furnished.

By a simple statement of the receipts and expenditures, it is meant that the itemized details of the budget should be stated in terms that are clear to the average citizen. Complexity and technical wording are to be avoided. Appropriations for budgets are usually made by people who are unfamiliar with either institutional administrative terms or those used frequently by accountants.

The following plan for submitting a budget is simple and requires no special ability in accounting to discern the amount and the reasons for the proposed expenditures and the changes from the previous year. The various divisions are plainly named and are itemized in such details that each is readily understandable even by those unfamiliar with budgets. The details are nevertheless not of such volume as to be confusing. This method can be used in preparing a budget for a tuberculosis institution of any capacity.

The budget is composed of two parts:

I. Ordinary Maintenance.

II. Special appropriations for expenses that are not incurred every year in the operation of the institution.

I. Ordinary maintenance is divided as follows:

BUDGET FOR ORDINARY MAINTENANCE FOR 19—

Division.	Amount.	Amount expended in previous year
1. Salaries and Wages.		
2. Food.		
3. Heat, Light and Power.		
4. Furnishings and Household supplies.		
5. Medicines, Medical and Surgical supplies and apparatus including X-Ray and Laboratory.		
6. Travel, Transportation and Office expenses.		
7. Clothing.		
8. Repairs and Renewals of plant and fixed equipment.		
9. Repairs and Renewals of furniture and movable equipment.		
10. Farm, Stable and Grounds.		
11. Miscellaneous.		

II. Special Appropriations for expenses that are not incurred every year in the operation of the institution are divided as follows:

BUDGET FOR SPECIAL APPROPRIATIONS FOR 19—

Division.	Amount.	Amount paid previous year.
1. New Construction.		
2. Purchase of additional land.		
3. Grading of grounds.		
4. New Equipment costing considerable money such as X-Ray machines, automobiles, etc. (Not replacing old equipment.)		
5. Alterations of the existing plant.		

The divisions of Ordinary Maintenance are itemized in order that these are easily understood and that these may present clear information, as follows:

1. SALARIES AND WAGES

Remarks: State the exact number of employees on the pay-roll, their positions, and the amount paid per annum to each.

Position.	Amount paid.	Amount paid previous year

2. FOOD.

Remarks: Attach a general statement as to basis for estimate.

Items.	Units.	Amount.	Amount paid previous year.
1. Bread.			
2. Butter.			
3. Eggs.			
4. Flour.			
5. Meat and Fish.			
6. Milk.			
7. Sugar.			
8. Vegetables.			
9. All other foods.			

3. HEAT, LIGHT AND POWER

Items.	Units.	Amount.	Amount paid previous year.
1. Coal.			
2. Electricity.			
3. Gas and Gasoline.			
4. Oil.			
5. Wood.			
6. Other operating supplies for boilers and engines.			

4. FURNISHINGS AND HOUSEHOLD SUPPLIES

Items.	Units.	Amount.	Amount paid previous year.
1. Linen and Bedding.			
2. Crockery and Glassware.			
3. Electric Lamps.			
4. Upholstery.			
5. Kitchen and Household Supplies.			
6. Laundry. (If sent out.)			

7. Table linen, Towels and Napkins.
8. Soap, Laundry and Lavatory Supplies.
9. Other items.

5. Medicines, Medical and Surgical Supplies, and Apparatus, Including X-Ray and Laboratory

Items.	Units.	Amount.	Amount paid previous year.
1. Medicines.			
2. Instruments, Supplies and Apparatus.			
3. Laboratory.			
4. X-Ray.			
5. Sputum Cups.			
6. Sputum Handkerchiefs.			
7. Other items.			

6. Travel, Transportation and Office Expense

Items.	Units.	Amount.	Amount paid previous year.
1. Travelling expenses.			
2. Postage.			
3. Freight, Cartage and Express.			
4. Telephone and Telegraph.			
5. Stationery and Office Supplies.			

7. Clothing

Items.	Units.	Amount.	Amount paid previous year.
1. Boots, Shoes and Rubbers.			
2. Clothing (outer) including Hats.			
3. Clothing (under)			
4. Other items.			

8. Repairs and Renewals of Plant and Fixed Equipment

Items.	Units.	Amount.	Amount paid previous year.
1. Boilers and Engines.			
2. Electrical.			
3. Plumbing and Steam Fitting.			
4. Laundry.			
5. Ice Machinery and Refrigeration.			
6. Ranges, Cookers, etc.			
7. Paint.			
8. Lumber.			
9. Other items.			

9. Repairs and Renewals of Furniture and Movable Equipment

Items.	Units.	Amount.	Amount paid previous year.
1. Furniture.			
2. Equipment.			
3. Automobile repairs and supplies.			
4. Material and supplies for ordinary repairs.			
5. Other items.			

10. Farm, Stable and Grounds

Items.	Units.	Amount.	Amount paid previous year.
1. Dairy, Equipment, and supplies.			
2. Grain.			
3. Hay.			
4. Horses.			
5. Cows.			
6. Other live stock.			
7. Blacksmithing and supplies.			
8. Harnesses and Repairs.			
9. Stable and Barn Supplies.			
10. Tools and Implements.			
11. Seeds, Trees, Vines, etc.			
12. Other items.			

11. Miscellaneous

Remarks: Include only such items as cannot well be placed in other divisions of budget.

Items.	Units.	Amount.	Amount paid previous year.
1. Ice and Refrigeration.			
2. Insurance.			
3. Taxes. Interest on Bonds or Mortgages on Corporate Real Estate.			
4. Entertainments.			
5. Books and Periodicals.			
6. Occupational Therapy.			
7. Other items.			

This budget has been devised after a study of numerous municipal, county, state, private and semi-private institutional budgets and annual financial statements. Exceptions might be made to the placing of some of the items in certain divisions. However, the chief desire in formulating these has been simplicity and the items have been placed in divisions into which these seem to fall most readily.

In most public institutions, the budgets are required to be reported in a certain specified form by the bodies who are to pass upon the budgets. The reason for this is that there are usually many budgets of the various departments to be considered, such as the police, fire and school, and an attempt is made by the city or county treasurer or the state comptroller to keep these finances in as nearly a uniform manner as possible. Tuberculosis hospital budgets are not readily understood when made out along the general line of other public expenditures and are deserving of a separate arrangement. At present in New York state, a budget similar to the above has been recommended to the state comptroller for use in the county tuberculosis hospitals.

THE MOTOR TRUCK AS A TRAVELING HEALTH CLINIC*

By JOSEPH J. WEBER, M.A., Managing Editor, The Modern Hospital, Chicago

EVIDENCE, much of it striking in character, is accumulating daily which goes to show that the campaign now being waged for conserving human health will not be altogether a front porch campaign. Hospitals, dispensaries, health centers and doctors' offices there will be, to which the sick, and the well who have the will to keep well, can go, with more or less convenience, for the diagnosis of their ills, treatment, periodical medical examinations, and instruction in the intelligent guidance of their footsteps along the highway of health. But health campaigners, particularly during the past five years, have not been content solely to provide buildings, equipment and medical and surgical skill to which the sick can resort for diagnosis and treatment. Rather, they have chosen to follow the advice of the parable of old and "Go out into the highways and hedges and compel them to come in." In a word, they are determined to carry the gospel of good health, and in some measure the means of attaining it, to the people themselves, especially to the people in our rural communities, where the ways of health are not always clearly understood and where modern facilities in equipment and skilled personnel for the diagnosis and treatment of disease are not always readily available. This campaign has been made possible by an interesting, and often picturesque, combination of modern educational materials and methods and modern transportation facilities. In this aggressive campaign, railway trains and parts of trains have been used, as, for example, the Sanitation and Health Train which the State Board of Health of Florida conducted during 1916 and 1917 for the purpose of delivering lectures on health and sanitation with motion pictures and slides; motor trucks, as, for example, the Cleveland Children's Year Special conducted by the Children's Year Committee of the Council of Defense of Cleveland, Ohio, in 1918, which carried exhibits, gave motion picture shows, distributed literature and conducted a dispensary for child hygiene and welfare work; motorcycles, as, for example, the Flying Squadron of Health which by exhibits, stereopticon slides and lectures carried propaganda throughout Wisconsin from 1911 to 1915 for tuberculosis prevention and cure, for the Wisconsin Anti-Tuberculosis Association; trolley cars, as, for example, the Children's Year Special conducted in 1918 by the Women's Committee of the Michigan Division of the Council of National Defense for exhibit, examination, lecture and demonstration purposes; horse drawn vehicles, such as the Health Exhibit Wagon conducted by the Vermont State Board of Health during 1913 and used for moving pictures and health exhibits; and, to deviate slightly from our field, even the house-boat, as, for example, the house-boat "Josephine," which was chartered by the California State Board of Health to carry an exhibit of animal parasites and a working field laboratory. Doubtless we shall soon witness the White Winged Squadron swooping down from the great spaces above to deliver its message of health to human beings diseased either in body or mind. To speak at any length regarding all of these mobilized

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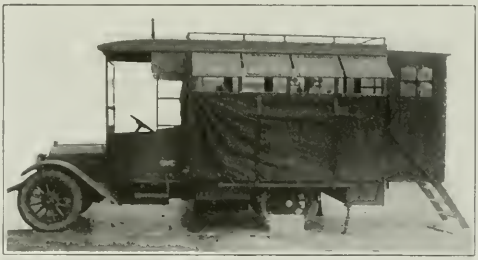
The clinic on wheels which is touring Alameda County, California, under the direction of the Tuberculosis Association of that county, goes mostly into the industrial sections where the foreigners are prone to neglect their own and their children's teeth. The nurses are shown examining the children.

*Read before the Twenty-Second Annual Convention of the American Hospital Association, Montreal, Canada, October 4-8, 1920.

means of conveying health is clearly out of the question in a paper of this character. I shall merely attempt to touch upon a few of the salient points in the evolution of the motor truck as a traveling health clinic, and record some of the latest developments and results.

Any organization contemplating the use of this instrument for accomplishing some of its work, particularly for publicity purposes, will find not only the health publicity campaign, but also campaigns relating to a variety of other vital subjects, rather fully discussed in Mrs. Mary Swain Routzahn's book on Traveling Publicity Campaigns, published last year as one of the Survey and Exhibit series of the Russell Sage Foundation, New York City.



This traveling dental clinic has collapsible wall tents on each side, the frames for the ends of the tents being carried inside the car.

Traveling clinics usually have any one of three main purposes:

First: General or specific education.

Second: Examination, diagnosis and advisory service.

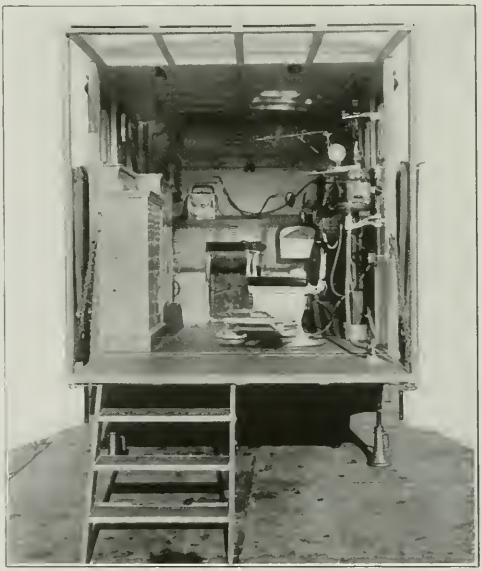
Third: Definite treatment.

In some instances the traveling clinics are definitely equipped to function along two of these lines, in a few instances along all three. When treatment is given, the clinic manifestly must function, also, along diagnostic and educational lines.

The traveling clinics whose purpose is primarily educational character have resorted to practically every known modern educational expedient, including formal lectures, informal talks, personal advice, pamphlets, leaflets, exhibits, stereopticon views and motion pictures.

One of the most interesting of these clinics is the Child Welfare Special which began its career on the 11th of July, 1919, in Morgan County, Illinois. This clinic had its origin in the needs of the rural child, and the desire to give the country child the health and medical facilities heretofore accessible only to the city child, and to bring home by personal contact the lessons of child conservation. Although children were examined at this clinic (100 to 150 weekly in the counties first visited), these examinations were merely incidental. The main purpose of the clinic was to demonstrate by means of the examination of the children the need of periodical medical examination and the method of meeting this need, and to stimulate and aid in the organization of permanent child welfare work in the community. The examination of each child usually took about twenty minutes. During the examination the doctor would discuss each point with the attending parent, who at its conclusion was given copies of appropriate pamphlets published by the Children's Bureau, as well as a record of the child's physical condition and any written recommendations the doctor might have to make. If any defects were found, the parents were urged to have them attended to promptly by their family physician. As the clinic was not for clinical purposes, but wholly educational in character, sick children were rejected and referred either to a physician or to another clinic.

Since this clinic was primarily an educational clinic, the examination of children was reinforced by other means of bringing home the lesson of child welfare work. The Special carried an exhibit consisting of posters, charts, panels and miniature models of a few household utensils used to show good ways to bathe, clothe, and feed young children. This exhibit was set up in a nearby waiting room and put in charge of a member of the hostess committee. Now and again the doctor and nurse talked informally to the waiting mothers, using the exhibit or charts to illustrate the points they made. The Special also carried moving picture films and stereopticon slides which were shown at prearranged evening meetings.



Looking into the interior of the mobile dental clinic from the rear. Observe the complete and compact equipment.

Another interesting experiment of recent date, which illustrates the use of the motor truck for educational purposes along health lines is the Social Hygiene Field Car. This experiment is being carried out under the auspices of the American Social Hygiene Association, the American Red Cross, and the United States Public Health Service, and state and municipal boards of health. Its purpose is to carry on an educational campaign throughout rural districts through the use of moving pictures, stereomotograph slides, and other exhibits, regarding the ravages of venereal diseases and methods to combat them. Special women's and men's lecture films are used for the women's and men's meetings, respectively. In this campaign, school houses, churches, lodge rooms, and other available meeting places are, so far as possible, used for the lectures.

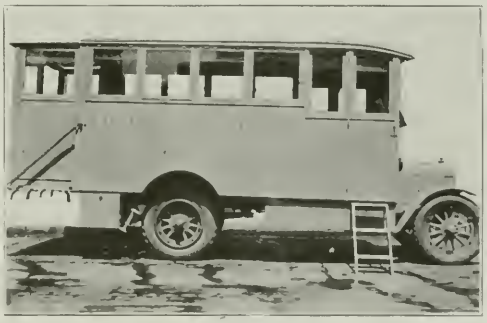
An interesting modification of the motor truck whose purpose is primarily educational, is the Health on Wheels Truck of the New York State Department of Health, which is especially equipped to show health films at any

remote locality, whether or not suitable halls or electric current are available. The body of this truck is so designed that it can be used as a temporary infant welfare station, as a miniature traveling laboratory, as a means of transporting x-ray and other apparatus for clinical work and for other purposes. A somewhat detailed description of the construction and equipment of this car will be given in a later section of this paper.

For the purpose of weighing and measuring children and rendering advisory service, the Public Welfare Committee of Montreal conducts a traveling baby clinic. Ordinarily the patients are limited to twenty-four months and under. This clinic, the first of its kind in Canada, was put into the field in the autumn of 1917, and since then close upon 1,000 children have been examined. This healthmobile completed a three weeks' itinerary through rural Quebec, examining both children and babies, and conducting a public health exhibit at the rural fairs.

Looking at the mobile dental clinic from the rear. This picture shows the clinic ready for business, with the collapsible wall tents lowered and set up on each side of the truck.

An illustration of the second type of clinic, that is, the clinic whose primary purpose is diagnostic rather than educational, is the occasional tuberculosis clinic which was successfully initiated by the Tuberculosis Committee of the New York State Charities Aid Association. This was a traveling clinic not in the sense that it utilized the motor truck in order to get about from place to place, but in the sense that the clinics had no fixed location and were held only occasionally and at varying intervals. For this reason, perhaps, their discussion should not form part of this paper. However, I speak of them briefly here. In the work of establishing tuberculosis dispensaries in the cities of New York State, the fact was brought out that a real need of facilities for the examination of the lung existed in small communities and rural districts where there was no dispensary and often not even a resident physician with special training and experience in the diagnosis of tuberculosis, especially in its early stages. To meet this need, traveling dispensaries were established which furnished expert medical examination to remote communities at irregular and rather long intervals. They served, however, not only to furnish this much needed diagnostic service (treatment was never rendered), but also to demonstrate the need of tuberculosis hospitals where they did not already exist, to promote the increased use of existing hospitals, and to bring to light the conditions that promoted the spread of the disease, and thereby made possible effective methods of preventing it. These clinics have grown in number until now they are held under the auspices of the New York State Department of Health and the New York State Charities Aid Association jointly and separately, and under the auspices of local communities who have established them on their own initiative.



The Children's Bureau of the United States Department of Labor has provided a big gray automobile truck, known as the Child Welfare Special. It is believed by the department that the ground can be covered better by the Special than in any other way.

The Health Clinic of the Chicago Tuberculosis Institute, which serves a similar purpose, works on a definite schedule, covering about forty different towns each month at specified times. In mild weather the clinics are held in the healthmobile itself; in cold weather they are held at waiting places, usually a schoolhouse or church. An average of two hours is spent at each place, during which period from ten to fifteen patients are seen.

A so-called diagnostic traveling clinic on a somewhat more ambitious scale, though not employing a motor truck as a means of transportation, is that recently inaugurated by the New York State Department of Health. This clinic is diversified in character, is in session at given points for a week or more, devotes its attention to a variety of diseases, and is manned by skilled visiting specialists.

The third type of clinic is that which, while doing diagnostic work, also goes further when necessary, and gives treatment as well. Obviously, the traveling treatment clinic has marked limitations. It has, however, proved a success in the treatment of teeth and trachoma, as witness the Mobile Dental Units of Nassau County, New York, conducted under the auspices of the Junior Red Cross, and the Traveling Trachoma Clinic conducted by the United States Public Health Service Bureau for the purpose of operating on cases of trachoma.

Nassau County (Long Island, New York) has many villages and townships but no large cities. "The greatest need for the health of the children," writes Mrs. Marion Willetts Brower, chairman of the Nassau County Chapter of the Junior Red Cross, "lay in the inability of doing follow-up work after the required New York State medical inspection revealed alarming physical defects among pupils in the common schools. On further examination it was found that the greatest trouble was the condition of the teeth. Ninety per cent of the 25,000 children of Nassau County needed immediate attention. With the records of the draft boards still fresh in everyone's mind, it was decided that this was the best end at which to attack the problem." Finding it impossible to get the children to local dentists, it was decided to take the Junior Red Cross dentist to the children. A Ford delivery car was bought and equipped with portable dental apparatus. Such was its success that before the end of the school year six dentists were em-

ployed, two dental cars were placed in the field, and one dentist was paid mileage for driving his own car.

A word as to the details of running one of these clinics. The clinic visits each school upon definite written application by its superintendent. A date is fixed and when the car arrives, the equipment is carried into the schoolhouse and the examinations begin. Defects are jotted down on a mouth chart, made out in duplicate. One of these charts is retained by the Chapter and the other is sent by the child to his home, accompanied by a consent card, worded as follows:

"TO THE PARENTS OF.....
Your child..... needs dental attention. This is the time to have the small cavities filled to prevent future loss of teeth. If you have a regular dentist, will you please take your child to have these cavities filled while most of them are small? If you have no regular dentist and wish them taken care of in school, at a cost charge, by the Junior Red Cross Dentist, please sign the attached card and return to the teacher."

"TO THE JR. RED CROSS DENTIST:
You are hereby authorized to do any dental work for my child....., that you may deem necessary, said work to be done at a cost charge of $..... I agree to pay this charge in advance or upon completion of the work."

The social hygiene field car ready for an outdoor exhibit, one of the means used in carrying on its educational propaganda.

Following the noon hour of the first day, signed consent cards and money begin to come back and the dentist starts his work. A record of the work done each day is made out on the "day sheet" which is mailed daily by each dentist to the executive secretary of the Junior Red Cross, at the Chapter House. When the dentist completes his stay at a given school the executive secretary of the Chapter compiles from the day sheets and cash received a statement of the work done and the financial transactions, and sends it to the principal to be countersigned. The local dentists have been very cordial and have found that the educational work of the clinic has filled their waiting rooms.

A somewhat more ambitious scheme was the two motor clinics put into the field by the Nova Scotia Provincial Branch of the Canadian Red Cross Society. They traveled throughout the Province of Nova Scotia during the months of July and August of this year. Each clinic consisted of motor trucks, motor ambulances and touring cars. These vehicles conveyed four medical specialists, dentists, trained nurses, and Red Cross representatives, and the equipment of a ten to twelve bed hospital to be set up quickly in schoolhouses or other suitable buildings. The purpose of these clinics was not only to teach the laws of health and assist in the improvement of local health conditions, but also in remote places to make medical inspections, treat children and those afflicted with tuberculosis, and do dental work, particularly for children and emergency cases. The main effort was directed toward impressing on people the importance of having everyone, especially the children, frequently visited by the local physician, in order that disease and its effects might be dealt with in their early incipiency. Only persons who were unable to pay were treated at these clinics unless a special request was made by the family physician.

The social hygiene field car getting ready for an exhibit at Eureka Springs, N. C.

Construction and Equipment of Motor Truck Clinics

Manifestly, it is out of the question to describe in detail the construction and equipment of the various kinds of motor truck clinics. The equipment naturally depends very largely upon the purpose of the clinic. Some conception of their construction and equipment may, however, be obtained from a brief description of two or three types.

The Federal Children's Bureau, under whose auspices the work of the Child Welfare Special, to which reference has already been made, was conducted, submits the following description of this truck:

The truck is modeled very closely upon the dispensary truck used by the Chicago Tuberculosis Institute. The body of the car is constructed of wood, painted white on the inside and battleship gray on the outside. The words "Child Welfare Special" are lettered in blue and white on each side of the car. The truck is roomy enough for a conference room and two dressing rooms. The conference room is nine and a half feet long, six feet wide, and six feet four inches high in the center. This room has four windows on each side, high enough to be out of reach of prying eyes, yet admitting sufficient light for daytime examinations. The driver's cab, which is entirely enclosed in glass, can be reached from the conference room by a sliding door; with the shades drawn it forms one dressing room. The open-end gates of the car, provided with double folding doors and heavy curtains that fit into grooves, form a second dressing room. When a mother enters one of the rooms, she has the exclusive use of it until the child has been undressed, examined, and dressed again.

Most of the equipment of the truck is built in. A 15-gallon water tank, tucked away over the driver's cab, is connected by faucet with a stationary washstand in the conference room, which in turn is connected with a drain to the outside. The examining table and the linen lockers are built over the wheel housing, an arrangement which saves space and improves the appearance of the car. A scale for babies and older children

Everything is set for the placard exhibit and the stereomotorgraph of the field car.

is carried in an especially built trunk. There is enough storage space for 2,000 publications, a full set of exhibit material, a balopticon with several boxes of slides, two rolls of moving picture film, several dozen charts for lecture purposes, cot, bedding and cooking utensils for three persons, a large supply of sheets and muslin squares, and all the other equipment necessary for conducting a children's health conference.

Two systems of lighting, one for a 110-volt current that can be taken from a nearby public building, and the other for a six-volt current taken from the truck's own batteries, furnish excellent illumination for night work. Two electric heaters have recently been installed for use on cool days. Weather strips have been put on the cab to keep out wind and rain, and a tarpaulin made to fit over the rear doors keeps out the dust.

Arrangements have been made for the staff to sleep on the Special—the doctor on an army cot in the conference room, the nurse on a similar cot in the rear dressing room, and the chauffeur on the driver's seat, which was constructed to serve as a bed.

The Social Hygiene Field Car now touring North Carolina is a truck weighing a ton and a half. It contains a complete motion picture equipment capable of throwing a picture one hundred feet either indoors or out in the open. It also has a darkening apparatus for dimming schoolhouses, churches or other places. A 3,000-watt, 60-volt, 46-ampere generator and a lighting plant to supply power not only for the moving picture machine motor, but also light for the lecture hall.

The healthmobile of the New York State Department of Health consists of a three-quarter ton motor truck chassis upon which is superimposed a body about the size and shape of an ordinary motor ambulance. The truck has a generator independent of the auto engine for producing electric current, a storage battery and moving picture machine, and a sectional screen which is fastened to the strongly reinforced roof of the truck. The New York State Department of Health furnished the following interesting details as to how the healthmobile gets into action once it reaches its exhibition ground:

When the healthmobile reaches the locality where it is desired to give an exhibition, the lower half of the rear door is let down so that it virtually forms an extension floor, while the top half is raised so that it extends out beyond the roof, forming a shelter for anyone standing on the tailboard. The electric generator outfit, which burns either kerosene of gasoline, is then started, in order that the storage batteries may be fully charged while the picture machine is being set up. The latter is transported in the body of the truck in a trunk especially designed for the purpose. The apparatus is raised to the roof and set up at the forward end of the truck, while a folding screen is bolted into vertical position at the rear end of the roof. In order to obtain a greater focal distance, this screen has been made so that it can be slid outward from the rear end for a distance of from two to four feet. While the machine might equally well be placed in the body of the truck and the screen braced on the ground, the location on the roof has the added advantage that the picture can be seen from a greater distance.

The dental units used by the Nassau County Junior Red Cross are Ford delivery cars. On their bodies appear the legend: "Junior Red Cross Dental Education Car." They are equipped with Archer Manufacturing Company's Child's Prophylactic Chair. Although its chair can be carried from the car into the school building by the dentist and the janitor of the school, it is absolutely steady and durable. Instruments, the instrument cases, foot engine, sterilizer, and a small stand which holds the instrument case and the sterilizer made up the remainder of the portable equipment when the clinics were first inaugurated. As the work progressed, a Waugh x-ray machine with a Coolidge tube was added to good effect. In schools that were not equipped with electricity a small kerosene stove with a sauce pan served as a suitable substitute for the electric sterilizer.

Preparing the Way for Effective Action

In most instances the motor clinic has to depend on advanced publicity and organization for real effectiveness. The kinds of advanced work needed depend, of course, upon the nature and scope of the campaign.

As indicative of the advance work required, let us consider the work done preliminary to the visit of the Child Welfare Special.

This clinic went only on the invitation of the state board of health, thereby insuring the cooperation of local agencies, such as the county medical society, the county board of education, the board of trade, women's clubs, and kindred organizations. These bodies assisted in mapping out the itinerary, arranging for meetings to explain the need for vigorous manhood and womanhood, as well as the purpose of the clinic. Committees were organized in the larger towns and chairmen and hostesses in the

The field car at the City Hall of Fayetteville, N. C.

smaller settlements. These committees were responsible for receiving the Special and its personnel, securing publicity, an appropriate stopping place for the clinic, the attendance of special groups and the foreign born, making appointments with families desiring conferences, providing motor service for speakers, and other activities. An advance agent usually preceded the arrival of the clinic by about two weeks, and assisted in the organization of these committees and their work. This agent carried with her material for the newspapers, printed instructions for the committees, copies of announcements for the ministers, and posters advertising the Special. In each community she visited the local officers, editors, physicians, ministers, farm advisers, county demonstrators, representative citizens, business men, and social agencies to explain the purpose of the clinic.

What of Results?

In one of the reports submitted to the Federal Children's Bureau early in the career of the Child Welfare Special, Dr. Francis Sage Bradley observes:

The Special has the distinct advantage of at once gripping public interest as none of the previous work could do. This may seem spectacular from the professional standpoint, but it gets results. It is believed that the ground can be covered better by the Special than in any other way; that its better equipment will make far better results than any method tried to date; that its usefulness is directly in proportion to the ability of the physician in charge to make the public realize that she is merely demonstrating the need of periodic examinations and a method of accomplishing the same; that she bears in mind the fact that the examination is merely an incident and not the object of the Special, and that its more important function is to stimulate and aid in the organization of permanent follow-up work by the community, and that she does not scorn to take advantage of the dramatic element of an appeal from the government at this psychological time.

The New York health automobile carries motion picture apparatus, for both indoor and outdoor exhibits, as well as dispensary equipment for holding clinics.

Miss Janet M. Gesiter, R.N., who had an unusual opportunity to observe the work of this clinic, offers this testimony:

* * * the cordiality of the response, the awakened interest, the new efforts to conserve childhood that are following in the wake of the Special are, in my opinion, well worth the money and trouble expended. Its very bulk and unusualness challenge attention instantly, and when its mission becomes known it enlists the hearty cooperation of the entire community. The Special is a very tangible evidence of Uncle Sam's interest in his children—it has a dramatic appeal that is easily capitalized.

Here are a few samples of some of the specific results of the influence of this particular project. A latent medical society was stimulated to work for a county nurse; a group of farmers were impelled to seek information as to the meaning of child welfare work; a council of miners were moved to raise about $800 toward the support of a community nurse; a baby clinic previously thought of bloomed into actuality; milk clinics for undernourished school children were encouraged; local physicians were swamped with children's work following the visit of the Special. Cleveland testifies that its Children's Special compelled people in all walks of life to think about child conservation. The mother who had hitherto shunned the Baby Welfare Center was compelled by the very attractiveness of the Mobile Clinic to resort to it whenever her baby needed attention. Connecticut, too, felt that the chief accomplishment of its baby Special was the interest it aroused in child welfare in hitherto apathetic and indifferent communities.

Regarding the work of the traveling tuberculosis clinic of the Washington Tuberculosis Association, Dr. R. J. Cary, consulting physician, writes under date of September 20, 1920.

In the beginning we were somewhat doubtful as to the results that might be obtained from such an experiment in this state, but in looking over the results we have been convinced that it was one of the most practical methods of reaching the smaller communities, and as a result of our experience with the Traveling Clinic and Exhibit, the Medical Service of the State Association was started the first of January, 1920, and up to the present time forty-three clinics have been held in various parts of the state outside of the cities of Seattle, Spokane, Tacoma, and Everett, ten of which may be designated as permanent.

The September issue of the *Social Hygiene Bulletin* reports that an unofficial count taken during the first week's tour of the social hygiene field car through North Carolina shows that 6,100 men, women, and children saw the moving pictures, stereomotograph slides, and other exhibits. Preliminary reports indicate that a goodly number of persons infected with venereal diseases or fearing that they were infected, applied to local physicians and clinics, as well as to the members of the staff of the field car, for information and treatment.

As to the work of the traveling clinic which the Bureau of Venereal Diseases of the Florida State Department of Health sent throughout the state, particularly to turpentine and lumber camps and other labor centers where treatment facilities were not provided, Dr. Lorin A. Greene, director of the State Bureau, reports that "the plan is working out splendidly and in the location where the clinic is now operating we have under treatment a very large number of venereal cases, most of which could not have been reached in any other way."

Here is a summary of the work done by the Junior Red Cross Mobile Dental Clinic from September, 1919 to June, 1920:

No. of schools worked in	40
Pupils receiving dental attention	2591
Number of sittings	4825
First molars extracted	853
Other extractions	2100
Treatments	423
Prophylaxis	2058
Fillings	8707
Root fillings	69
Approximate hours of service rendered	3114
Charge for work done	$9543.30

In beginning this work it was found necessary in many instances to relieve pain and clean up many badly abscessed mouths. This year the aim of these clinics will be to care first for the children in the lower grades by beginning a systematic program of preventive work.

One further bit of testimony in closing. When Dr. George E. Vincent, president of the International Health Board, visited Nova Scotia a little over a month ago for the purpose of evaluating the work of the Red Cross Caravan clinics, as the Nova Scotians picturesquely characterize their multiple unit motor truck clinic, as a factor in public health education, he expressed his opinion concerning the work likely to be accomplished by traveling clinics of this character in these words:

The mobile clinics which have recently been in the field in Nova Scotia under Red Cross auspices represent a suggestive and valuable demonstration of the kind of service which a modern health center can render. The undertaking has a number of important aspects. It has rendered service to thousands of individuals. It has impressed communities with the meaning of modern diagnostic methods. It has emphasized the preventive aspect of medicine. It has strengthened the position of practitioners throughout Nova Scotia, and has created a public opinion which ought to result in substantial appropriations to the public health service of the Province.

There is no reason why every corner of Nova Scotia should not have regular access to diagnostic laboratories and various forms of service. This would mean not a supplanting of the present medical profession, but the opening up of new possibilities and a reinterpretation of the practice of private physicians.

The Province is to be heartily congratulated upon the success of the caravans, the influence of which will be felt throughout the continent. Nova Scotia, with its homogeneous and intelligent population, is in a position to make a striking demonstration of a thoroughly efficient public health service working in close relation with the medical profession and with private agencies.

In this brief paper I have not attempted an evaluation of the traveling clinic as an instrument for promoting the public health. At best, this is a difficult task, and the subject is important enough to warrant a separate paper. Whether its advantages outweigh its disadvantages when examined in relationship to particular purposes, must, until a greater volume of data is available, remain the responsibility of those in charge of particular projects.

REGISTRATION IN RELATION TO OUT-PATIENT AND HOSPITAL ADMISSION*

By JULIA R. McLENEGAN, Registrar, Milwaukee Children's Hospital, Milwaukee, Wis.

IN THIS restless period Americanization is a national slogan, and every progressive Association has adopted some kind of an Americanization program. The spot of vantage in which to study the various races and their characteristics is the admitting room of a Children's Hospital. We meet there not only people of many nationalties, but often strange race combinations; for example, our dark skinned, blue eyed, light haired girl baby is French and Indian on the mother's side with Spanish and negro paternal grandparents. The sick boy baby's mother, aged 14 years, is Portuguese and his father of Scotch-Irish descent. A large majority of the parents seen here are foreign born. Many of them grew to maturity in their native countries. Fully a third of the mothers speak no English, and another third speak and understand it so slightly that it is difficult to converse with them except through the children or through a friendly interpreter. Even with assistance it is not easy to explain anything more complex than a concrete fact.

A real understanding of the beliefs and prejudices, problems and perplexities of these many strangers is impossible, for it would presuppose a knowledge of many languages, and of the manners, customs, and religions of each nation. Our only hope is to drop the beneficent attitude too often assumed by the American, in his effort to Americanize, and to go at the problem with open minds and alert sympathies. We must realize that while we have much to give we may receive much in return.

The parents in the admitting room are in strange surroundings, and unless we can convince them at least of our good intentions, their attitude is bound to resemble that of the little country boy, who until he reached the age of five years had never been to a large city. His mother then took him on a shopping expedition to Chicago, and his remarks as they passed through the busy streets were amusing and embarrassing. When they entered an elevator at Marshall Field's he screamed in terror as it shot up to the fifth floor. When his mother led him back to make the trip down he screamed again, and digging his heels stubbornly into the floor, gasped, "I won't. I tell you, I won't! I will not get into that silo again."

Registration, Necessary Procedure

The registrar's desk is a place of first impressions, and the feeling resulting from the conference held there between the registrar and the parent is apt to be carried throughout the entire intercourse. There are advantages in hospital registration, however, as the parent usually comes anxiously seeking help for her sick child, and will answer necessary inquiries, feeling that it all has something to do with giving that aid.

I often think that it is most unfortunate that answers to these inquiries must be placed upon a card,—as we talk over the family situation,—and wish that some hidden mechanical device could record the necessary facts. Some parents have a fear of recorded information, thinking it may be used by a court or in some vague way influence the husband's employer.

The objects of registration are several:

1. To protect staff physicians from giving free services where they are not merited.

2. To protect our Out-Patient Department and Hospital in the same manner.

3. To introduce the family with a brief survey of the situation, to the Social Service Department.

4. To gain any information of importance with regard to the health situation, which may assist the physician in his diagnosis.

5. To serve as a filing record for future reference.

Budget Valuable As Standard

The registrar cannot be absolutely guided by the making of a family budget, as to the eligibility of that family for hospital or dispensary care. The budget is of value as a standard, and is of great assistance in the hands of an intelligent worker, but it means nothing in the life of the Guamkoupolis family, for example. Father G. earns $35.00 a week, and according to the most recently revised Associated Charities Budget, he should be able to properly

*Given before Milwaukee Hospital Conference, December 4, 1920.

feed and clothe his unusually small family of only three little 'polis's upon that amount. But there stands Aristotoles Guamkoupolis (4 years), on two absurdly crooked legs, showing that sweet rolls, sugar cookies, macaroni, and much coffee, do not make for strong bodies; and baby Poulos on the same diet, with the addition of some natural nourishment, does not try to walk, though two years old. Only careful medical supervision and the follow-up of a Social Service Department will ever straighten out these babies, or correct the parents' ideas on the care and feeding of children. So the 'Polis's must stay until they have learned to live in terms of a budget.

Budgets are also valuable for comparative purposes, and they illustrate the many difficulties which people are experiencing under the abnormal living conditions of the present time. A comparison of the following will best illustrate this point. They are based upon the Associated Charities budget of the years 1915-16, 1918-19, and the family is that of a skilled laborer, belonging to the class known as machinist-helper, and eligible during both periods for dispensary care.

Family Budget for 1915-16 and 1918-19, showing increase in living expenses.

Family of William Blank—1915-1916.

	Food per week
Man—Laborer	$1.75
Woman—Housekeeper	1.38
Boy—12 years	1.38
Girl—10 years	1.21
Girl— 8 years	.86
Boy— 4 years	.52
Girl— 2 years	.52
Baby—6 months	.49
	$8.11
Per month of 4⅓ weeks	$34.14

Expenses Per Month

Rent	$10.00
Fuel	3.50
Household Upkeep	3.13
Insurance	1.60
Carfare	2.17
Clothing	15.00
Food	34.14
	$69.54

Resources Per Month

Wages of Man, laborer, $18 per week, 4⅓ weeks	$78.00
	$78.00
Resources	$78.00
Expenses	69.54
Surplus	$ 8.46

Family of William Blank—1918-1919.

	Food per week
Man—Laborer	$ 3.00
Woman—Housekeeper	2.20
Boy, 15, at work	3.00
Girl—13 years	2.20
Girl—11 years	1.99
Boy— 7 years	1.60
Girl— 5 years	1.60
Girl— 1 year	2.20
Girl— 1 year	
Food	76.70
	$17.70
Per month of 4⅓ weeks	$76.70

Expenses Per Month

Rent	$ 25.00
Fuel	4.50
Household Upkeep	6.25
Insurance	2.00
Carfare	2.60
Clothing	28.00
Food	76.70
Total	$145.05
Wages of Man, laborer, $25 per week, 4⅓ weeks	$108.35
Wages of Boy, 15, $9 per week, 4⅓ weeks	39.00
	$147.35
Resources	$147.35
Expenses	145.05
Surplus	$ 2.30

Cost of Caring for Patients

The per capita cost of caring for a patient in our hospital at present is $2.50 per day. We ask parents to pay whatever fraction of this amount they are able to manage, and of course the amount which they can pay depends upon the length of time the child is in the hospital, as well as upon the family income. There are always those unable to pay any fee at all.

We are constantly beset by parents who have heard that the Children's Hospital is a *free* hospital and see no reason why they should pay at all. Others say that a neighbor's child was cared for for three dollars a week, therefore cannot see why we should charge six for their child. We try to explain that we charge according to what the family is *able* to pay. Yet others who will gladly pay $50.00 if we cure Mike, see no reason for paying at all *unless* we do.

Often patients are eligible for some trouble requiring long continued treatment, (I have in mind cases of orthopedic nature, and chorea cases), where they could afford to have a home doctor, (some of them term it a *real* doctor) for lesser ailments.

A family is often eligible temporarily on account of some unusual financial setback or misfortune. I have in mind a minister who came to Milwaukee to build up a very badly rundown congregation, and who came to us when his salary was three months in arrears for advice in the case of one of his boys.

The important thing seems to be that parents should pay something when they are able. It is of importance that when a fee is set it should be collected. We advise weekly payments, send monthly bills, and if they do not receive attention after several months, and we can get no explanation of the delay, we place the account in the hands of a collector. Some people feel no obligation until a collector arrives. There they pleasantly ask him why he has not called before. The Children's Hospital has never started a suit, but were recently on the point of doing so as a disciplinary measure in the case of a stepfather who injured his child a year ago, in a fit of drunken temper. The little girl recovered in our hospital, and later the father refused to pay any sort of hospital fee. A few weeks ago the collector visited the former home with the object of starting suit, only to find the place vacant, the parents divorced, and another disciplinary measure in action, as the father is serving a twenty-year sentence in the House of Correction for a more serious offense.

This is a brief sketch of type of work we do. If we meet with some success in gaining cooperation, and confidence from our people, we feel that our humble attempt at Americanization has not been in vain.

AMERICAN CONFERENCE ON HOSPITAL SERVICE ANNOUNCES PROGRAM

The program of the American Conference on Hospital Service, which is to be held at the Congress Hotel, Chicago, on March 9, includes the following important addresses: Introductory Remarks by the president of the Conference, Frank Billings, M.D., Chicago; Some Factors of Importance in Adequate Medical Service for a Community, by Winford H. Smith, M.D., director of Johns Hopkins Hospital, Baltimore; Dietotherapy, by Lulu Graves, professor of home economics, New York State College, Ithaca; Report on the Hospital Library and Service Bureau, by Donelda R. Hamlin, director of the Bureau, Chicago; and a discussion on the general theme, The American Conference on Hospital Service, opened by Mr. E. R. Embree, secretary of the Rockefeller Foundation, New York; Dr. Ray Lyman Wilbur, president of Leland Stanford University, Leland Stanford University, California; Rev. Charles B. Moulinier, Milwaukee, president of the Catholic Hospital Association of the United States and Canada, and others.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
122 W. 85th Street, New York City

PROGRESS IN NURSING EDUCATION DURING 1920

BY MARY C. WHEELER, R.N., SUPERINTENDENT, ILLINOIS TRAINING SCHOOL FOR NURSES, CHICAGO, ILL.

THE recent public demand for readjustments in the training of nurses has been an insistent one. This demand, however, has not been as exacting as the demand for daily readjustments which have constantly been made upon every training school executive since the first Red Cross nurses were called in May, 1917. The boards of control and training school executives are, therefore, ready to do all in their power to put the training of women, as nurses, on as sound a basis as can be desired by the public.

Individuals and groups of training school executives have, as it were, "gone into retreat" and studied conditions, and ways and means, and have dreamed ideals for the future. Out of the necessary readjustments to meet immediate, urgent needs, has come a tolerance of others and their ways, a willingness to experiment, and a desire to aim for high standards. Such persons as expect the pre-war product in nurses from our school will be disappointed, for the woman who enters a real school today is thinking before she enters, while she is in the school, and after she leaves it. Her readjustments, all along the line, are difficult for her and for others, but the public provides the student and her equipment, and no school can entirely make over this material and guarantee satisfaction to the public, whose ideals in turn may have changed during her time of training. To train a woman as a nurse is valuable, but the real problem is to develop her character in such a way that she is able and willing to contribute a definite service to the community in which she lives.

A school is divided into three parts—first, a tangible, reasonable piece of knowledge worth transferring from one intellect to another, second, an intellect to receive, and, third, another intellect to give this special knowledge. Then, too, there are transferred lessons both inspirational and exemplary, of the utmost value to the student in her character formation.

Choosing Executives and Students

The boards of control, in general, select the head of their school on the basis of, first, the woman, and next her special ability. The psychologist is also helping to avoid misfits in the choosing of executives and students. The curriculum is undergoing some pruning; time studies, conferences, exhibits, textbooks, laboratory work, moving pictures, graphs, and examinations are all helping teachers and schools to come to a conclusion as to minimum fundamentals and pointing to various possibilities and advantages of methods and advance practice. The student with background and ability, has been in the same three year mold as the student of less background and ability, although here and there we find a rift in the three year cloud, and the woman, as a student, is credited for her previous experience.

The practice of a student nurse is being confined more nearly to the nursing service, while her living and recreational interests are receiving much more attention. Within the ranks the student nurse is developing a willingness to take responsibility for her own actions in accord with considerate community living. The school in connection with the Good Samaritan Hospital, Los Angeles, claims a thrifty, six year old student government organization. The Milwaukee County Hospital, the school of nursing in connection with the University of Minnesota, the Philadelphia General, the Toronto General, the Illinois Training School for Nurses, and the Massachusetts General, have all reported a definite advance in the student government plan. There may be others interested in the same piece of work but who have not reported. Looking into history, we see human relationships developing first as slave and owner, then man and master, followed by employee and employer. The next step, which is now being taken, is that toward partnership. Student government is eliminating the military form of discipline, and working toward this idea of partnership.

Influential People in Nursing

Closely associated with influences for good among nurses, has been the life of Miss Sophia Palmer, who died in April, 1920. As editor of the *American Journal of Nursing*, she was a potent factor in our various struggles. Another person having authority and charm, who was an inspiration to us throughout the war program, was Miss Jane Delano, director of the Red Cross Nursing Service, whose body was interred at Arlington, September 18.

The Darche-Kimber Scholarship Fund, in memory of two early superintendents of the New York City Training School, is provided to help meet the instructor problem.

The Isabel Hampton Robb Memorial Fund has extended ten scholarships as an incentive to nurses to prepare themselves for executive or teaching positions, either in the training school, or in public health fields.

The Red Cross has granted a second scholarship fund of

$60,000 for nurses who wish to prepare themselves for public health service. The Red Cross has also planned for a scholarship for qualified women to fill positions in psychiatric social service, (*American Journal of Nursing*, March, 1920, p. 470). The McIsaac Loan Fund has extended three loans of one hundred dollars each for educational purposes. The woman's board of the Presbyterian Hospital, Chicago, has recently offered three scholarships, of three hundred dollars each to young women who wish to study nursing preparatory to going into the home or foreign missionary field. Ten scholarships in public health nursing were instituted at the League of Red Cross Societies held in Geneva last March, and are to go to Poland, Czecho-Slovakia, Roumania, Greece, Servia, Belgium, Portugal and three to South American republics. At the request of the League, the American Red Cross has granted one scholarship to France, one to Italy, and two to the United States.

Gifts to various schools of nursing have not been many during the year. It is noted that the Mount Sinai School of Nursing, New York City, has been fortunate in receiving a gift of $50,000, an endowment to be used for educational purposes, and for the health and welfare of the students in the nursing school.

Postgraduate Work Important

Seldom does a student nurse know, even at the end of her training, just what branch of nursing she wishes to ultimately follow. After graduating from her school and being out in the field for a time she is better fitted, mentally, to make definite plans for the future. Several well arranged postgraduate courses have been opened to students. Institutes have been held in several states and two or three definite executive postgraduate courses have been furthered. Sensible postgraduate courses should be of special value to the executive, for we cannot expect the right type of public health nurse, executive, or private duty nurse to come from institutions where only a few favorable qualifications can be found in the institution in which she has received her training. It would be of great value if boards of control and their friends would become financially interested in postgraduate courses, in order to help the graduate attain her aspirations, and contribute to the institution the results of extra study and experience.

The demands of the state boards of examiners to the effect that all students receive training in the fundamental phases of nursing, i. e., medical, surgical, obstetrical, and pediatric, has brought about affiliations or exchange of nursing services. The principle is right, but the working out has been difficult. It is realized, however, that as yet we have no perfect school of nursing and the students from the large schools need experience in the smaller community hospitals, while students in the smaller community hospital need to go to the larger institutions.

Training the Attendant

On May 12, 1920, Gov. A. E. Smith, New York State, affixed his name to a bill providing for the registered nurse and the trained attendant. New Jersey has had amendments to the Nurse Practice Act which place with the state department of public instruction the power to determine the value of educational credentials. Utah and Wisconsin are now considering changes which will ultimately advance or retard the growth of the student in the school. By definitely bringing in the trained attendant, as New York has done, it is hoped to meet the bedside nursing problem with competency, and free the registered nurse for special kinds of service. Should this plan meet with favor, schools will need to make many more readjustments in order to plan for the training of the attendants, and it is an open question as to the advisability of training the two groups in a school at the same time.

One of the several things which has broadened the vision of the student and graduate has been the raising of a fund to found the Nightingale School of Nursing in Bordeaux, France, in honor of those nurses who gave their lives for their country in the World War. The necessary $50,000 has now been oversubscribed and the ground for this school may be broken before long. The influence of the American nurse will thus gain another foothold in the education of women as nurses, in shaping the lives of the young French women who will enter training in the Bordeaux School. The Nightingale Centennial was celebrated in all parts of the country May 12, 1920.

The Adelaide Nutting Historical Nursing Collection, which the graduates, students, and friends of the department of nursing and health have recently founded in honor of Miss Nutting and of the twentieth anniversary of the nursing work in Teachers College, has started with an initial sum of $1,200. This library will be housed in the college and will be available for any student of nursing history who wishes to consult it. (*American Journal of Nursing*, April, 1920, p. 555.)

The November, 1920, report of the Nurses Relief Fund shows a small amount over $35,000. This fund has been extremely helpful to some of the nurses in their time of need.

Standardization Difficult

It has been a very difficult thing to get the schools of nursing throughout the country in any way standardized. The rapid sprouting and growth, between 1880 and 1903, with no restrictions whatever, presents at the present day an immense number of problems. Tradition and waywardness have made the diagnosis of the present conditions most difficult. Various organizations have taken the trouble to study the problems from many angles, and when we have been thoroughly "surveyed," "field studied," and "questionnaired," we sincerely hope that a wise diagnostician may be able to interpret our symptoms and prescribe the proper remedy.

Facts about the nursing situation are being garnered. The accredited lists of schools for nurses, with data sent in by the schools themselves, correct to January 1, 1920, have been finished by the joint efforts of the American Red Cross and the American Nurses' Association.

In February, 1920, the Rockefeller Foundation showed an interest in the acute nursing situation by holding a series of conferences. Since that time it has been intensively studying conditions, and a report of the findings by this Foundation, a wholly independent body, should be of much value.

Cleveland has just published a survey of all of its health relations. This not only points the way which Cleveland should follow, but the conditions found there must surely be typical of other cities.

Conference on Hospital Service Started

The main purpose of the American Conference on Hospital Service, started in 1919, is to secure adequate hospital service for the sick and injured. (THE MODERN HOSPITAL, December, 1920, p. 445.) Under the auspices of this Conference and by the financial aid of the National Organization of Public Health Nursing, an opportunity was given members of boards of control, educators,

lay persons, medical men, and nurses, to give to others the benefit of their experience in the training of women for nursing. A definite report of this activity was read at the convention of the American Hospital Association held in Montreal, October 4, 1920, a copy of which may be found at the library of the conference, 22 East Ontario Street, Chicago.

Again touching the nursing conditions is the report of the American College of Surgeons, which has definitely approved of certain hospitals (THE MODERN HOSPITAL, November, 1920, p. 420-421), one qualification for approval being that a school of nursing carried on under certain conditions shall be in connection with the approved hospital.

The Central Council of Nursing Education has brought together the boards of control of twenty-two schools located in five different states in the Middle West, with headquarters in Chicago. These boards came together originally to study causes of shortage of student nurses, and they are finding a wide field to investigate. The Council's activity, this last year, has been largely in the line of publicity. Several states, especially Michigan, have carried on wide publicity campaigns. The three national nursing organizations, namely, the National League of Nursing Education, the American Nurses' Association, and the National Organization of Public Health Nursing, have joined together, and, assisted by the American Red Cross, are planning a country wide publicity campaign. The definite results of this campaign will be uncertain, but one thing which will need great consideration by all concerned is the necessity for the school which has been brought to public attention to live up to a standard.

What Is the End in View?

This outside interest is very valuable, and much appreciated by the persons who for so long a time and with such strenuous efforts have tried to stem the tide against any kind of minimum standards.

What are we looking forward to? There is an old definition of science (Porter) which says that science is knowledge in the forms of exact observation, precise definition, fixed terminology, classified arrangement, and rational explanation. We are now trying to make exact observation, by the various surveys, and gradually classifying the facts; learning a common language, and in a few instances we have reached a reasonable explanation.

It is leading to colleges of nursing, with students selected, educated and trained in mental, spiritual and physicial attributes, and graduated on a system of credits, rather than the fulfillment of a certain length of time; women, as students, selected and retained because they show continued development of character in the right direction and who will make a money exchange for their education. It means a place for postgraduate experience in special lines of nursing and allied activities, a place for the training of the attendant who can ably give bedside nursing service, a place for the practical experience of the student dietitian, a center of training for public health teachers and their activities. From this college can radiate a properly supervised nursing service into the small community hospital, for such length of service as will be beneficial, thus giving an equal chance to the woman in the large and small school, enlarging the student's knowledge of community life, and grouping the theoretical work and making it intensive when the student is free from the physical and mental strain of ward duty.

MORE REFERENCE BOOKS FOR NURSES

Some correspondents have taken exception to the "List of Reference Books Recommended for a Nursing School Library," which was published in the December number of THE MODERN HOSPITAL. It was not intended that this list should be considered complete, as almost anyone at all familiar with the subject could name well known and much used books that were not included. It was meant to be suggestive and it was hoped that any school that secured the books listed would become so interested that they would continue to add to their library until they possessed a large number of the very valuable books the titles of which were omitted. We are glad to publish a list of additional books, but realize that even yet our list is incomplete, and might have more books added in almost every issue.

Manual of Nursing Procedure....Pope
Essentials of Dietetics....Pope and Carpenter
Quiz Book for Nurses....Pope
Text Book of Anatomy and Physiology for Nurses....Pope
Physics and Chemistry for Nurses....Pope
Dietary Computer....Pope
Materia Medica for Nurses....Dock
Short History of Nursing....Dock and Stewart
Essentials of Surgery....McDonald
State Board Questions and Answers for Nurses....Foote
Surgical and Gynecological Nursing....Parker and Breckenridge
Materia Medica and Therapeutics for Nurses....Foote
Home and Community Hygiene....Broadhurst
Care and Feeding of Infants and Children....Ramsey
Physics and Chemistry for Nurses....Bliss and Olive
Fever Nursing....Wilson
Practical Bandaging....Eliason
A Nurse's Handbook of Medicine....Henry
Mental Medicine and Nursing....Chase
Private Duty Nursing....DeWitt
How to Cook for the Sick....Sachse
Making Good on Private Duty....Lounsberry
Nursing Technic....Wheeler
Materia Medica, Pharmacology and Therapeutics for Nurses....Pope
Practical Points in Nursing....Stoney
First Year Nursing....Goodnow
Primary Studies for Nurses....Aikens
Clinical Studies for Nurses....Aikens
Bandages and Bandaging for Nurses....Cowan
Bandaging....Whiting
A Reference Handbook for Nurses....Beck
American Pocket Medical Dictionary....Dorland
The Hospital As a Social Agent in the Community....Catlin
First Lessons in Bacteriology for Nurses....Morse
Orthopedic Surgery for Nurses....Berry
Materia Medica for Nurses....Paul
Nursing in the Acute Infectious Fevers....Paul
Obstetrics for Nurses....DeLee
Reference Handbook of Obstetric Nursing....Wilson
Reference Handbook on Gynecology for Nurses....Macfarlane
Treatment of Emergencies....Owen
Anatomy and Physiology for Nurses....Lewis
The Principles of Surgical Nursing....Warnhuis
The Ophthalmic Nurse....Lewis
Nursing in Diseases of the Eye, Ear, Nose and Throat....The Committee on Nurses of the Manhattan Eye, Ear, Nose and Throat Hospital.
Applied Bacteriology and Pathology for Nurses....Roberts
Chemistry and Toxicology for Nurses....Asher
Practical Physics for Nurses....Goodnow
Diseases of Children for Nurses....McCombs
Occupation Therapy for Nurses....Dunton
Bacteriology and Surgical Technic for Nurses....Stoney
The Expectant Mother....Bandler
Care of the Baby....Griffith
Hospital Management....Aikens
Massage....Böhme and Painter
Medicine for Nurses....Hoxie
State Registration....Boyd
A Manual of Nursing....Donahoe
A Text-Book of Nursing....Weeks-Shaw
Good Health—How to Get It—How to Keep It....Doty
The Prevention of Infectious Diseases....Doty
The Care of the Teeth....Hopkins
The Care of the Skin and Hair....Pusey
Girl and Woman....Lattimer
The Prospective Mother....Slemons
The Home Care of Sick Children....Coolidge
Nutrition and Dietetics....Hall
The Chemistry of Cookery....Williams
Clean Water and How to Get It....Hazen
The Cost of Cleanness....Richards
Food: Its Composition and Preparation....Dowd
Handbook on Sanitation....Price
Anntomy and Physiology for Nurses....Dawson
Anntomical Diagrams: For the Use of Art Students....Dunlop
Bacteriology for Nurses....Smeeton
Chemistry for Nurses....Ottenberg
Nursing Mental Diseases....Bailey
A Textbook on Home Nursing....Harrison
Public Health Nursing....Gardner
The Organization of Public Health Nursing....Brainard
Sanitation for Public Health Nurses....Hill
School Nursing....Kelly
Industrial Nursing....Wright
The Principles of Nursing....Brown

Bacteriology and Protozoölogy for Nurses....Fox
Chemistry and Chemical Urinalysis for Nurses....Amoss
Hygiene and Sanitation for Nurses....Price
Outlines of Internal Medicine for Nurses....Farr
Obstetrical Nursing....Tallant
Public Health and Hygiene....Park
Therapeutic Exercise and Massage....Bucholz
A Diabetic Manual....Joslin
Rules for Recovery from Pulmonary Tuberculosis....Brown
Hygiene and Public Health....Price
Mouth Hygiene....Fones
Applied Anatomy and Kinesiology....Bowen
Democracy and Social Ethics....Addams
A New Conscience and an Ancient Evil....Addams
Twenty Years at Hull House....Addams
Autobiography of a Happy Woman....Addams
New Ideas in Healing....Baker
Our Slavic Fellow-Citizens....Balch
Margaret Ogilvy....Barrie
Origin and Growth of the Healing Art....Berdae
Civilization and Womanhood....Bradbury
Everyday Ethics....Cabot
Social Service and the Art of Healing....Cabot
Social Organization....Cooley
The Crusades....Cox
Pasteur....Frankland
Life of Mary Lyon....Gilchrist
Life of Ellen Richards....Hunt
Mutual Aid....Kropotkin
Crowds....Lee
The Common Growth....Loone
An Englishman's Castle....Loone
From Their Point of View....Loone
Neighbors and Friends....Loone
The Next Street But One....Loone
Making of Character....MacCunn
The Child Labor Problem....Nearing
Life of Alice Freeman Palmer....Palmer
The Nature of Goodness....Palmer
Florence Nightingale....Richards
Social Psychology....Ross
Friendly Visiting Among the Poor....Richmond
The Good Neighbor....Richmond
Woman and Labor....Schlichtoff
Bitter Cry of the Children....Spargo
Against the Current....Steiner
Immigrant Tide, Its Ebb and Flow....Steiner
On the Trail of the Immigrant....Steiner
The Philanthropic Work of Josephine Shaw Lowell....Stewart
The Standard of Living Among the Industrial People of America....Streightoff
The Family....Thwing
House on Henry Street....Wald
Fatigue and Efficiency....Goldmark

FUN AND FINANCE

By ISABELL RUGG, Chairman of Publicity Committee of the Y. W. C. A., University of California Hospital, San Francisco, Cal.

A little over a year ago a Y. W. C. A. was organized at the University of California Hospital training school for nurses. With about thirty charter members, the organization proceeded through the first year of its existence here. In August last came the big membership drive, and now, out of some one hundred and forty student nurses, eighty-three are members.

It was necessary this fall to have a financial campaign to tide the organization through the year. Plans to raise at least seventy dollars, were made by the advisory board members and brought before the cabinet members for consideration. It sounded like a big undertaking, but the decision was that with cooperation it could easily be done. All members were organized into definite committees, each working under an advisory board member. There were plans for noon lunches, evening lunches, shoe shines, shampooing, pressing, manicuring, and lastly, a real circus. To do this, a system of advertising was necessary, and with the aid of magazines and newspapers, quite an array of posters was produced.

The noon lunches were packed in cardboard boxes by the girls, and delivered to the hospital staff, and students of the medical and dental schools, for thirty-five cents each. This committee cleared one hundred and sixty dollars. Shoe shining, manicuring, shampooing, and pressing were a second committee's work. For five and ten cents one had an excellent shine, and thirty-five cents procured a real water wave. This committee cleared twenty-seven dollars. The committee on food undertook to sell home-made cake, pie, and doughnuts, with piping hot coffee, each night in the nurses' home, charging fifteen cents, and $21.50 was cleared by this committee.

To end an already most successful campaign, came a real circus. For this affair five hundred tickets were printed, all but four being sold, and thirty-three dollars was taken in at the door. The recreation hall in the nurses' home was roped off to form an arena where the main acts were performed. The fun began with a parade of human animals. The bear, none other than the director of nursing, made the announcements, while the giraffe and the elephant produced some very clever antics. There were two performances, equally crowded. On the floor below were the sideshows, all of which were well advertised by "spielers." Attractive booths were everywhere, ready to supply the patrons with pink lemonade, hot dog sandwiches, cake, coffee, and candy.

The whole campaign was one of work and revelry and not soon to be forgotten. Much of its success was due to the enthusiasm of the entire student body, the hospital staff, interns, medical and dental students, and nurses from other hospitals. The Y. W. C. A. now has a budget of $370 to carry on its work next year in the school of nursing.

STANDARDIZE RULES FOR INFANT CARE

Rules to be used by public health nurses in teaching mothers how to care for their infants, have been standardized by the Babies Welfare Federation of New York City, and are being issued to all public health nurses in Greater New York in handy leaflet form, under the title "Routine Care of Babies."

The New York City Department of Health is placing the leaflets in the hands of all its nurses; eleven other organizations, including settlements, maternity centers, visiting nurses' associations, and babies' clinics, are also using this handy system of instructions. A thousand leaflets have been distributed.

The National Midwives' Association has arranged with the Federation to publish the leaflet in its magazine, which is sent to over 3,000 licensed midwives, including those operating on New York's congested East Side, as well as throughout the state.

Miss Anne Stevens, of the Maternity Center Association; Miss Maria L. Daniels, of the New York Diet Kitchen; Miss Grace Marr, in charge of the Infant Welfare Stations in the New York City Department of Health; Miss Anne Sutherland, of the Bureau of Educational Nursing of the Association for the Improvement of the Condition of the Poor; Miss Anne Goodrich, Henry Street Settlement; and Miss Lillian Hudson, Teacher's College, are some of the leading New York nurses who have approved these rules. All are members of the Health Station Committee of the Federation, which aims to associate together all agencies doing welfare work for babies and young children in Greater New York, and "save life by saving wasted effort." One hundred and seventy-five such agencies are already affiliated in the Federation.

THE LEADEN-EYED

By VACHEL LINDSAY.

Let not young souls be smothered out before
They do quaint deeds, and fully flaunt their pride,
It is the world's one crime its babes grow dull,
Its poor are ox-like, limp, and leaden-eyed.

Not that they starve, but that they starve so dreamlessly,
Not that they sow, but that they seldom reap,
Not that they serve, but have no gods to serve,
Not that they die, but that they die like sheep.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

WHAT THE WAR TAUGHT US IN TRAINING HOSPITAL DIETITIANS*

BY MARY DE GARMO BRYAN, PRESIDENT, AMERICAN DIETETIC ASSOCIATION, JERSEY CITY, N. J.

AS IN many other branches, the war taught us much in the field of dietetics. Excellent work was done by many dietitians both at home and abroad. I was proud to read in the association letter that several of them were decorated for conspicuous service. This good work was particularly to their credit, as it was done in places made largely by themselves. In spite of the great need of trained women in handling the food supply in camps and hospitals, there was no position ready made for the dietitian in the army. She was a fifth wheel in the mess department unless she could fit herself in so as to become the steering wheel of the organization.

The lack of interest in our late war is conspicuous, and though I would avoid a "postmortem," I shall use a personal experience merely because it was a common one. When I arrived at the base hospital to which I was assigned, no one knew just what to do with à "dietitian," for no such person was mentioned in the "Manual." I was permitted to plan the light diets under the supervision of the mess sergeant, who had been a company cook, and the mess officer, an ear, nose, and throat specialist, who was not particularly interested in food. Gradually, with the loyal support and cooperation of the commanding officer, I arranged for necessary equipment, and later planned all the food, issued it to various kitchens according to the number of patients being fed from each, planned special diets, and attempted to see that the food was sent to the wards and served in mess halls in proper condition. One assistant dietitian was sent after several months, and as the number of patients increased, more assistants were placed there.

Dietitians with whom I have been able to get in touch had similar experiences. In France, although an order was issued from General Headquarters in the spring of 1918, defining the duties of dietitians in army hospitals, they did all sorts of jobs, from cooking for the patient officers' mess or planning the nurses' mess, to preparing light special diets, and occasionally supervising all the food in the hospital, as was expected of them.

Dietitian's Position Should Be Definite

From such experiences dietitians seem to have formulated certain ideas as to the position of the army dietitian. It should be as clearly defined as that of the army nurse. If given the same position as that of supervising dietitian in a civilian hospital, as mess officer, as such, is unnecessary; providing dietitians are given rank, as are nurses, making it possible for them to become an integral part of the military system. Purchases can be made by the supply officer, and the storeroom managed by a competent sergeant. The mess sergeant is the logical person to superintend the cooks, assume responsibility for cleanliness of kitchens and mess halls, and otherwise attend to carrying out the plans of the dietitians.

What concerns us most at this time, however, is the fact that dietitians were not always capable of meeting situations that arose, or of making a place for themselves in which they could serve to advantage. Many of the experienced dietitians were held in this country where executive work was required, and where the large number of medical cases would make them most useful. In France, with insufficient help, untrained cooks, makeshift equipment, uncertainty and monotony of the food supply, irregularities in the number of patients, and with everyone working under extreme tension, the situations called for equipment we had not in all cases given our dietitians. In this line, as in many others, the war did not make changes, it merely showed us our strength and our weaknesses more quickly, more vividly, than we would otherwise have discovered them in the same period of time.

Prominent Points in Training

From such experiences certain points to be stressed in the training of a dietitian stand out. They have to do, firstly, with her college preparation, secondly, with her training while a student dietitian. The college should give her the principles of cookery, with such actual experience in cooking on a large scale as is practicable; a study of quantities of all ordinary foodstuffs required per person, or in the case of commercial containers, per service; in short, all one would get in a good course in cafeteria management. Accurate scientific knowledge of the principles of nutrition, so far as are known at any given time, and their application to diet in health and disease, is of course fundamental. A course in institutional management would seem to be necessary, and is required by some colleges. Difficulty lies in the fact that girls, who intend to teach, omit these courses, become tired of teaching, and go into hospital dietetics without the proper foundation, and knowing nothing of the institu-

*Read at the third annual meeting of the American Dietetic Association, New York City, October 25-27, 1920.

tional point of view. And just here we find one of the important responsibilities of the college, that of sorting out students contemplating the choice of hospital dietitian as a vocation.

Hospital's Function

Much of this training will be theoretical, and it rests with the dietitian giving courses in hospitals, with the superintendents, and with physicians dealing with conditions requiring dietetic treatment, to give the student dietitians their working knowledge, thus cooperating with the college. But actually we find that, in many hospitals, students spend their entire time in a diet kitchen preparing special diets for patients whom they never see, and with whose condition they are not kept in touch. They go out of college interested in dietetic therapy, and gradually lose their enthusiasm. Cooperation on the part of the physicians in explaining to the students the results of the treatment would do much toward keeping their interest keen, and training them for special work in diet in metabolic diseases.

In other hospitals the student dietitians spend the three months of the course in making junkets, custards, etc., and in preparing desserts and delicacies for the private patients. It is well to know how to do these things, but it is essential that they know how to prepare soups, meats, and vegetables, if they are to be trained for the position of supervising dietitian. Under the supervision of the head dietitian they should get the planning of menus and ordering of supplies, if possible, in accordance with a daily per capita cost, as most hospitals have a definite allowance which can be expended for food. Students also depend on the hospital for training in handling the people who do their work. Perhaps this cannot always be taught, but the principle of an appeal to individual initiative, rather than the use of domineering methods, can be demonstrated by a successful executive. Unless they are given practice in all sides of the work of an administrative dietitian or of a metabolic dietitian, if they desire to specialize, these students merely serve as a source of cheap labor to the hospital, and leave their training without the things for which they came to the hospital.

Cooperation Important

Lastly, let us stress "cooperation" in training our dietitians, gracious cooperation with the doctors and with the nurses. In some hospitals there is a feeling of antagonism between the dietitian and the nurses. This is unreasonable and unwise. The dietitian can send the food from the kitchen in proper condition, but she is entirely dependent on the nurses for the way in which it reaches the patients. All of us working for the good of the patient should work together, for, after all, the power of an ideal, and cooperation to attain it, is the biggest lesson the war taught us. That seems to me to be the promise in this association and its possibility as a power. It can hold constantly before us the ideals for which we are striving, that we may work for them together, helping each other in every way, in teaching, in hospitals, in institutional work, so that each dietitian may feel that she is a part of a whole, working to give dignity and definition, standing and standardization, to a new profession.

THE DIETETIC DEPARTMENT OF A WESTERN HOSPITAL

By K. WINIFRED MacSWAIN, Chief Dietitian, the San Francisco Hospital, San Francisco, Cal.

THE dietetic department of the San Francisco Hospital is at present the largest one west of the Rockies. It covers three distinct branches of work; namely, that of the main hospital, the tuberculosis hospital, and all the dining room departments. There are three resident dietitians—one chief dietitian and two assistants—who are directly responsible to the superintendent of the hospital. There are two student dietitians taking postgraduate work, the course covering a period of from four to six months, so that on an average, six student dietitians are trained each year. Under this staff are waitresses, waiters, and pantry help, to the number of fifty-five.

The work of the dietitians includes supervision of the special diet laboratories and the ward diet kitchens in the main hospital and the tuberculosis hospital, the management of the main dining rooms for the staff and employees, and also the training of the student dietitians and the nurses in the special diet laboratory, as well as teaching classes in nutrition and cookery and dietetics, both theoretical and practical.

Student Gets Practical Training

The main hospital consists of one special diet laboratory and eighteen ward diet kitchens. In the laboratory the special diets for diseases of metabolism are given the closest scientific attention. They are figured by calories, and the food prepared under the supervision of the student dietitians and the nurses. It is operated as follows: Two nurses are on duty here for two months of their training, where they learn to cook the food scientifically, weigh the special diets, prepare specials for postoperative cases, and put up baby formulas. Previous to this time they have had a course of lectures with practical work in nutrition and cookery and dietetics. When their term in the diet laboratory is finished, they should be able to figure by calories, and to plan and prepare any diet for a patient.

Special diets for the three meals are figured and planned a day ahead by the student dietitian. A duplicate copy is made of each diet, so as to be easily checked up if any difficulty arises. As many as sixty special diets have been listed at one time, but they vary in number. The caloric sheet, recording gram content, is sent daily to the doctor in charge of the case. The nurse prepares part of the food the day preceding, and the perishable food on the day on which it is to be served. It is then weighed, and placed in a pan for distribution. All the food for each diet for a whole day is kept in a separate pan and put on a section of the table which is divided according to different wards. At quarter past ten every morning the ward men call for the food, which is passed through an opening to them. The men bring pitchers for the different liquids such as broth, orange juice, cream soups, and buttermilk. In this way all the responsibility

for special diet distribution falls on the dietetic department.

Work in the Ward Diet Kitchen

The ward diet kitchens next receive attention. Daily ward orders are taken, stating the number of patients, the classification of their diet, and the amount of food supplies necessary. These orders are then sent to the chief who is in charge of the main hospital kitchen, the food supply list is sent to the commissary department. As the daily orders are not special individual diets, the food for them is prepared in the chef's kitchen by him and his staff, not in the diet laboratory. It is then distributed to each ward diet kitchen by means of gurneys run by ward men who are under the supervision of a steward. The food is then kept hot in steam tables until served by the pantry maids.

Each ward diet kitchen has a pantry maid, and there are three relief maids for the eighteen kitchens. The relief system is a rotating one allowing each maid one day off each week; the relief maid keeps the same schedule each week. Their work consists of serving an average of from twenty-five to thirty ambulatory and tray patients, according to the ward, and classification of diet. They also keep the diet kitchens and dining rooms in order.

At serving time a dietitian makes the rounds of the wards to see that the food is served on time and served correctly. At this time, too, the doctors are consulted with regard to special diets. Some of the visiting doctors ask that the dietitians make the rounds with them and discuss the patients' diets. This cooperation is the only satisfactory way diet in disease may be effectively carried on.

Besides this daily planning of special diets, there is the making of the weekly menus for the staff, employees, and patients. These are discussed and settled with the chef who carries them out. There are four separate dining rooms for the staff and doctors, nurses, women, and men employees. All are served by waitresses and waiters, there being no cafeteria here at present, but the demand for one is growing. The waitresses and waiters for these dining rooms have their different stations, and extra duties assigned, as well as those in the serving pantries. Each employee has one day off a week, and a relief is supplied in the schedule.

The tuberculosis department occupies the time of one assistant dietitian entirely. Here there is a special diet laboratory and eight ward diet kitchens, running on the same plan as in the main hospital, having the rotation system for maids, and the same distribution of foods. This special diet laboratory for the tuberculous has proved particularly satisfactory in cases where complications exist. It is the only laboratory in a tuberculosis hospital in the West. We were very happy to see this comment in the California State Board of Health Bulletin, for April, 1920: "The San Francisco Hospital is now subsidized to its entire capacity. Private institutions will find it profitable to spend a day there investigating the diets. Certainly no place, public or private, has accomplished more than the dietitians at the hospital. San Francisco, to my knowledge, has the only special diet laboratory in any tuberculosis hospital in the West or Southwest."

As indicated before in this article, the cooperation of the doctors and the hospital staff has been very encouraging and has advanced the cause of dietetics.

Our next step in development is a metabolism laboratory, which we hope to have in the very near future. This, of course, will necessitate an increase of the personnel of the dietetic department.

OUTLINE OF COURSE IN DIETETICS

Following is a synopsis of the course of training given in the San Francisco Hospital. It is a four months' course.

I—Daily Rounds in Wards.
1. For ordering of food from main kitchen.
2. Number of patients in each ward recorded.
3. Diets classified.
4. Doctors consulted regarding special diets.
5. Supervision of daily supply and pantries.
6. Waste checked.
7. Supervision of food served.

II—Supervision of Main Diet Kitchen.
1. Actual cooking of food for special diets.
2. Measuring required portions.
3. Weighing caloric diets.
4. Preparation of baby formulas.
5. Individual teaching and supervision of nurses with regard to food prepared for special diets.
6. Responsibility for proper preparation and sending out of all food from main diet kitchen.

III—Desk Work.
1. Study of recipes for special diets.
2. Continued study of foods required for special diets.
3. Daily menus made for special diets and caloric values figured.
4. Planning of weekly menus for all patients.
5. Ordering of supplies for main diet kitchen and wards.
6. Employment of help.
7. Planning the time of nurses and help in main hospital and tuberculosis department.
8. Daily ordering of food from special diet kitchen.
9. Planning of diets for contagious diseases and study of problems involved.
10. Planning menus for all patients.
11. Supervision of special diet kitchen, dining rooms, serving pantries, and ward diet kitchens.

IV—Teaching.
1. Courses of instruction in dietetics—theoretical and practical—given to nurses.

NEWS ITEMS

Miss Verna Inman has accepted the position of head dietitian at the Charles T. Miller Hospital, St. Paul, Minn. Miss Nell Dahl of the University of Minnesota is her assistant.

Miss Florence Ross, formerly dietitian at the Public Health Hospital, Boston, has accepted the position of restaurant manager with the Boston Rubber Shoe Company No. 1 and No. 2. Both of these restaurants are new, and the employment of a woman trained in home economics is in the nature of an experiment with them.

Miss Belle Haggerty is in charge of the dietary department of the Samuel Merritt Hospital, Oakland, Calif. Since assuming this work Miss Haggerty has ordered a great deal of new equipment in the kitchen. The spirit of cooperation is splendid in this hospital and the outlook is good for the development of a first class dietary department. Miss Haggerty was formerly dietitian at Alameda County Hospital, San Leandro, Calif.

Miss Hazel Winders recently finished a course of training as student dietitian at Michael Reese Hospital, Chicago, and has been appointed dietitian at St. John's Hospital, LeMars, Iowa. This hospital has not had a dietitian previous to this time.

Another of the students from Michael Reese, Miss Kate Helzer, has gone to Western Pennsylvania Hospital, Pittsburgh, as dietitian.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

BY CHARLES L. HAYS, CHICAGO, ILL.

THE first two months of 1921 give a good perspective for the observation of the economic changes of the last year, which include the most drastic depreciation in commodity values ever witnessed in the commercial history of the country. The results of such a study are reassuring. Prices of many raw materials and finished articles are believed to have reached the lowest point, at least of the present stage of the process of deflation, and in some cases a tendency toward recovery is noticeable. Liquidation is not complete and retail prices do not yet reflect in full the severe downward slump that has taken place in the wholesale field; but costs of living have been materially reduced, popular discontent has been in great part allayed, while a long step toward readjustment to a peace basis has been taken, and this with surprising smoothness and freedom from commercial disaster.

Retail prices are about 25 per cent lower than a year ago, and are likely to hold their slow downward course for the immediate future. The shrinkage in raw materials and in the wholesale markets is 25 to 60 per cent, in some cases to below cost of production, and here the reaction has set in. In some important lines of textiles, such as linens, sheetings, pillow cases, and other articles of household use, the public, after months of hand-to-mouth buying, is supplying more freely needs long held in restraint. Merchants' stocks, because of similar methods of purchasing, are low, and the narrowing margin of supplies has brought about a moderate revival of production. There is more confidence in the stability of prices, and buyers, although still cautious, are filling their future wants more liberally. Outings, ginghams, and knitwear are in a similar position.

Little Buying in Last Six Months

The last six or eight months stand in sharp contrast to the first half of 1920. Then there was a scramble for goods of all kinds, and no one seemed to care what prices were paid. Since last July, wholesalers and merchants have taken severe losses, while the public has refrained from buying except to provide for urgent needs. There is cause for gratification, therefore, in the current evidence that the turning point has been passed, and that a start at least has been made toward a resumption of activity. Revival probably will be slow, but all the more healthy on that account.

Financial stringency, which became acute at the culmination of the period of inflation and artificial prosperity, has been considerably lessened. Progress is being made in the reduction of loans, but it has not yet reached such a stage as to bring about a reduction of interest rates. Investment securities have advanced somewhat from the low point of last year, which was reached after an almost continuous decline beginning in November, 1919. The returns to the investor are now higher than have been known before in a generation, and the world-wide demand for money makes it probable that this condition may last for some time. Many new issues of bonds and short term notes are being brought out yielding 7 to 8 per cent, the total in the first fortnight of February exceeding $150,000,000. These attract mostly individual investors, particularly those of small means. Institutions and large investors are turning their attention to underlying bonds of railroads and utility companies, many first lien securities being obtainable at prices to yield around 6 per cent, which these discerning buyers foresee are likely to show a substantial appreciation when the money market returns to normal conditions. Many Canadian municipal bonds are being sold in American markets on a basis of 6 per cent or more, adverse exchange conditions giving opportunity for advantageous purchases of this kind in the Dominion. Even domestic municipals are obtainable at 5 to 5.25 per cent. In normal times 3.85 to 4 per cent is considered a good yield. These securities have been severely depressed by the flood of offerings of corporation and foreign government bonds with 8 per cent coupons.

Little Distress from Unemployment

While the curtailment of business has resulted in more unemployment than has been known before in the last six years, there have been surprisingly few evidences of distress. Labor, it seems, has been well fortified for the present lull by years of high wages. There is noticeable, however, a marked increase in efficiency in all occupations and a sufficient surplus of workers to relieve employers of many disagreeable experiences incident to war times and labor shortage. Manufacturing forces have been considerably reduced and in many cases wage reductions have been accepted voluntarily. The building trades afford an exception, and present conditions peculiar to themselves. The unions are disinclined to permit any modification of wage schedules. Individuals in many cases are willing to accept less, but such defections have not made much impression on the building deadlock, and the outlook for much more favorable conditions with the opening of spring is not encouraging, in spite of the fact that there is much idleness in this industry. Lumber, cement, heating equipment, plaster board, and other materials have

undergone substantial reductions in price, but in brick and steel there has been little change.

Food markets are unsettled and working lower. Grains have touched the lowest prices since 1913. Livestock is on a pre-war basis and meat prices are 25 to 40 per cent lower than a few months ago. Fruits and vegetables also are lower, and in canned goods substantial reductions on all but the highest grades have been made without stimulation of demand. Seldom have such violent changes taken place in twelve months' time as occurred in leading fruits and vegetables during 1920. There were two main price movements. The first showed a rapid upward trend through the winter and spring. The second, beginning in mid-summer, was marked by an equally persistent decline, reaching in some cases a level far below that prevailing at the beginning of the year. The second movement has continued during the first two months of 1921.

The contrasts brought about by the two movements are best shown in potatoes, which are an all year round staple commodity. Potatoes advanced steadily in 1919-20 from harvest time, and early in 1920 were quoted at $4 to $4.75 per 100 pounds. The advance during the winter, spring, and early summer reached an average top of about $7 in June. The early crop opened at high prices in May but declined rapidly. The downward trend became still more evident when the main crop began to reach the markets in the fall, prices opening at $1.75 to $2.50 and averaging about $2.10 per 100 pounds. Except for a slight and temporary recovery early in November, probably caused by the pre-holiday demand, the decline continued to the end of the year, closing at $1.75 average.

The latest available figures of the Department of Labor, those of December 15, show a reduction of 12 per cent in all food prices, while those of meats range from 11 per cent for plate beef to 34 per cent for pork chops. Since then there have been further reductions. Rice has gone 20 per cent lower in a year and all cereals have declined, but the reductions are most important in bulk goods. Since the first of the year the movement of farm products to market has been the heaviest at this season in five years, and the accumulation of surplus stocks has had a pronounced effect on the distributing situation.

Prices of crockery and glassware have held more steadily than those of many other commodities because during most of last year there was underproduction and a strong demand, due to the fact that the serious housing conditions in most centers of population caused a large increase in the number of hotels.

The markets for drugs and chemicals, after months of decline, are more stable. The buying movement which followed the taking of inventories at the beginning of the year has abated somewhat, evidently having been inspired principally by a desire to replenish stocks, but there is less reselling now and the tone is more steady. Permanganate of potash, which in war times rose as high as $4.00, is now down to $0.60. Carbolic acid is firmer than it has been for months. Proprietary goods have shown much less weakness than other lines, because of controlled supply and the cost of packing, and now reflect more strongly than anything else the stiffening of market conditions. An element of weakness in absorbent cotton is the prospective release of government supplies accumulated during the war. Ten carloads of this material and rolled bandages are said to have been received in Chicago recently, and while trade interests are trying to have the goods disposed of abroad, it is not at all sure that they will be kept off the domestic market.

Glycerin, soaps, and cleaners are dull, with little change in prices. Rubber trade interests do not expect any great strengthening in the market so long as signs of an awakening of the automobile industry are lacking.

Hospital supplies of the more technical nature reflect much the same conditions as maintained in the general price situation. Steel hospital furniture has reduced but slightly; surgical instruments, on the other hand, have been lowered quite materially, due to a considerable extent to imports from Germany and other European countries. The prices of enamelware, on the other hand, have changed but slightly, manufacturers stating that generous reductions will be impossible until the price of steel is lowered. Gauze and absorbent cotton have shown more generous declines than any of the surgical supplies. Here, however, some reaction has been evident, this condition reflecting the situation in the cotton textile market.

SCREEN SUGGESTIONS FOR THE COMING SUMMER

SCREENING of all openings on hospital and institutional buildings serves two very important purposes in the proper sanitary maintenance of such buildings: first, it protects the public at large from coming in contact with and possibly spreading contagious diseases; and second, it adds to the comfort of the sick. Bearing these two points in mind, it is of utmost importance that each and every opening to the air, from cellar to roof, inclusive, be enclosed with some type of screening, even though some portions may not connect directly or even indirectly with the building proper.

As it is a recognized fact that insects breed in darkness, dampness, and filth, such places should be done away with by any of the following methods: by leveling, grading, or filling in the grounds so that water runs away from building; by the installation of modern drainage systems; by the alteration of present conditions so that sunlight will enter, which can be done by enlarging present openings or cutting additional ones. If due consideration is given to the origin of the insect, as suggested above, 50 per cent of the problem is solved.

The screening of a building and the particular type most desirable can only be established to suit each particular case, and therefore I cannot too strongly emphasize the fact that, when consideration is given to new hospital construction, proper thought should be given to the future installation of screens and awnings in making up the architectural details for doors and windows. In the majority of cases this is completely overlooked and, therefore, later on causes a makeshift job, or unlooked for additional expense in order to secure a first class installation. Windows and doors of the same size and design throughout a building are desirable, as it cheapens the original cost of construction, and makes the taking down and replacing of window and door screens, as well as awnings, a simple matter, as they will be found interchangeable. Again, in a locality where new screens cannot be secured as quickly as might be desired, screens could, if necessary, be taken from a less important opening and rehung on a more important one.

The several points of importance in the screening of a building are—first, owing to the high cost of materials and labor, taking care to select that which will give the longest and best service at the smallest possible cost.

Second, the type of screen to be used—whether top hung full size, top hung half size, stationary, hinged, cage, twin sliding or half sliding screen, is most desirable. Third, the care and maintenance of screens, and where the funds are limited, the most important portions of buildings to be screened.

In selecting the type of screen wire to be used, one must be guided by the fact that when a building is located on or near the water, copper wire for screening is essential. Where otherwise located, ordinary galvanized screen wire will be serviceable, if properly dipped in anti-rust preserving paint, although copper wire gives longer service and does not require the constant painting that galvanized wire does. If cost does not enter into the question, monel metal is the very best that can be specified, for its life is almost unending, but its cost is so excessive that it is very little used. All wire should be woven with a warp and filler, crimped and held in place with notch free from any lacquer or coating, this gives the screen wire elasticity. Copper wire for window screens should be of No. 32 United States standard gauge, woven in a sixteen by sixteen mesh, and for door screens No. 29 United States standard gauge woven in the same mesh. It is customary to reinforce the screen wire panels of all doors approximately four feet high with a layer of electroplated wire of No. 21 United States standard gauge woven in a three by three mesh (meaning three squares to the inch in each direction); this prevents ruining of screen wire through foot pressure. The galvanized wire should have an electroplated finish woven the same as copper wire, using No. 34 United States standard gauge for the short width of cloth, and No. 33 gauge for the length.

Pine Is the Best Wood

The framework of screens for windows and transoms should be made up of clear white pine, properly kiln dried and free from all knots, either seven-eighths inch or one and one-eighth inches in thickness, the latter preferred. The side and top rails should be two inches wide and the bottom rail two and one-half inches wide, all muntins should be one and one-half inches wide and occur in all screens more than forty-two inches over all. Where full size screens are being used (meaning screens covering a full window opening), a horizontal muntin one and one-half inches wide on same line with meeting rail of window should be specified. When twin sliding screens are being used (meaning a screen in two halves covering the full window opening but sliding past one another), the bottom rail of top screen shall be the same width as top rail of bottom screen. When twin sliding screens are used, the slide mould for both screens should be two and one-fourth inches wide by one and one-eighth inches thick, with slide moulds in addition, all moulded out of one piece, run the full height of each opening and secured to window frame with two-inch screws twelve inches on center, heads countersunk. Screens should be fitted to these slide moulds so that they move up and down easily. The use of rosin or other substance of like nature for greasing slide mould, etc., should be strictly prohibited. Where screens are called for occurring on brick or metal openings, they should be hung from a rabbeted jamb, having side, top and bottom rails properly scribed to the uneven surfaces, or finished off with quarter-round mould scribed as above.

All door and window screens of whatsoever nature should be made up with full mortise and tenon construction and should have grooves to receive screen wire. The grooves, in turn, should be fastened with flush combination spline moulding attached, or screen wire may be locked into grooves with splines and finished off with moulding run in rabbets, secured with screws twelve inches on centers; nails may be used where cost is a question. Where water accumulates around bottom rail of screen, bore three one-half-inch holes through rail centered on line of window sill and back up with screen wire.

Door Screens

Door screens should be either one and one-eighth inches or, preferably, one and three-eighths inches in thickness, with six-inch bottom rails, three-inch side and top rails, and two three-inch cross rails, the lower cross rail to be of such height from floor as to be centered on the hubs of hospital beds, which saves doors when pushing beds in or out. The upper cross rail should be placed twelve inches above the lower cross rail, thus forming a solid rail to push against. All door screens having leaves more than two feet six inches wide should have a perpendicular stile in center of lower panel three inches wide. Where doors are single acting they can be hung directly to the present framing, but where double action doors are desired, a one and three-eighths inch by thickness of door hanging stile must be used in order to make clearance for hubs of butts, the width and thickness to be increased when conditions make it necessary to clear projections of present work. All mouldings on door panels should be flush. Where doors occur on openings having triple hung sash to floor, a transom bar shall be formed over door, the same as hanging stile, one-half inch lower than the inside window sash when raised to its highest possible position; this jamb should be secured to side walls with suitable angle irons and the unscreened space remaining should be filled in with a top hung screen. To prolong the life of screen doors, single action doors should be sheathed on one face, and double action doors on both faces, with black sheet iron, No. 20 United States Standard gauge, covering each complete face of same, except where screening occurs from floor to top of second cross rail, the iron occurring on bottom and cross rails to run through, covering both stiles in one piece; these plates should be secured with wood screws, staggered three inches on centers, heads countersunk.

The hardware on screens should always be of a heavy type, preferably brass, although stock pattern hardware for screens may be used, but this type, experience shows, is too frail for constant usage. The doors should be equipped with four or five inch spring butts, according to size of Bommer, Lawson or Chicago manufacture. Heavy hooks and eyes for keeping door open when so desired should be installed on each leaf of each door. A five-inch hand pull having three screws in each shank should be installed on the pull side of each leaf on all single acting doors. Ordinary butts or hinges with a heavy spring controlling door action is unsatisfactory, as spring soon loses its tension and never remains secured in place; such hinges may be used on hinge screens for windows. Top hung screens are hung in place with two hooks and eyes at head on outside, and two hooks and eyes at bottom, or special top hangers, as carried in stock by most screen manufacturers. Sliding screens should be equipped with oxidized steel springs of proper tension on each side of each screen in the sliding groove, to hold screen in position desired at all times; the bottom screen of twin sliding screens should have two sash lifts—one and five-eighths inches wide on the bottom rail and on the under side of bottom rail of top screen, two pulls each four and one-half inches long.

All screens of whatsoever nature, including doors,

should be equipped with brass numbering tacks and a duplicate tack, as is commonly used for this purpose, shall be installed on the nearest available point of installation. Copper screening should never be painted, but the frames, upon original installation, should receive one priming coat and two finish coats of paint, the colors to be selected.

The top hung full size screen is considered the best type of screening, as it covers the full openings, does not interfere with awnings, and can be pushed out from bottom for window cleaning. The hinged screen is used where window is circular in shape and where top hung cannot be applied.

Twin sliding full size screens are used where flower boxes occur on windows, but do not operate very well on windows more than three feet six inches wide; in all cases this type of screen should be twelve inches higher than its width. The stationary screen is commonly used in enclosing balconies and other large open spaces, and usually consist of large openings framed into smaller ones by one and one-half-inch by two-inch studs, to which the screens are secured by quarter-round moulds, or hooked into place.

Cage screens should be used only when no other type is available and should always be erected in what is known to the trade as "knock down construction," the same as a storm enclosure would be. They are most commonly used around the main entrance doors to a building, at hinged sash that swing out and at pivoted sash such as occur in operating rooms. The general construction in all cases should be the same as called for door and window screens, the various sides and top making up such screens to be held together with brass corner angles, and holdfasts to the ground. Cage screens at hinged sash either have the screen on the inside, or a projecting cage screen having one straight side, a quarter-round top and bottom and a curved side carrying out the sweep of sash on the outside. On pivoted sash half the screen is placed on the outside and the remaining half on the inside, both scribed to the glass and frame when window is open.

In removing screens, care should be taken that a general system is carried out, such as beginning at one particular prominent point on each floor and then working to the right or left back to the starting point, and in that order storing them, each screen to be properly dusted off on each face with coarse brushes, repaired if necessary, and hardware inspected so that screens are complete and ready for reinstallation the following year. Care should be taken not to drop screens on corners, as this weakens the joints. They should be stored flat and covered with cloths.

Where funds are limited, the most important portions of buildings to be screened are the kitchens, dining rooms, operating rooms, contagious wards, and linen sorting or washing room in laundry. Where only parts of buildings are being screened it is advisable to screen the interior doors leading to the rooms which are screened from the exterior. Experience has proved that any screen wherein the cloth is other than wire and where it is not permanently stretched in place soon bulges out of shape from wind and hand pressure, does not operate properly, and looks very slovenly to the critic. The pressed steel frame screen is more serviceable, but can never be repaired after being worn or injured, except at enormous expense in comparison to original cost. Furthermore, where metal frame touches metal slide, mould rust soon accumulates and makes sliding of screens at times impossible.

CHINAWARE FOR INSTITUTIONS

WHEN purchasing ware for any and all uses in institutions, public service places, and even the home, there are many points to consider; the first and paramount should be sanitation; after that, durability, attractiveness, shape, weight, etc.

Ware, to be sanitary and durable, must be vitrified, a class of ware generally known as china or porcelain, readily recognized by its translucency if the piece of ware is of medium or light weight. The dictionary tells us that "vitrified" means converted into glass. The potter, however, does not accept this definition as applying to his use of the word, and, as commercially understood, the word "vitrified" expresses a certain degree of density, namely, the condition of minimum porosity. We may say then that vitrified is the state reached by the body of a piece of ware when the heat treatment to which it has been subjected has rendered it impervious to water, fluids, or liquids of any kind. With the application of heat in the kiln to the body, the feldspar fuses, forming a glass. With continued heat treatment, this glass dissolves part of the clay and flint, these two constituting the non-fusing portion of the body, filling in the voids between the unattached particles, resulting in a non-absorbent body. It is the glassy portion of the body which gives the china its characteristic translucency. The degree of translucency depends on the extent to which the melted feldspar has dissolved the clay and flint of the body.

"Vitreous" and "semi-vitreous" are two words used in connection with pottery sales which are much abused and lead to misunderstanding. The dictionary tells us "vitreous" means consisting of, like, or obtained from glass; for instance, there is a vitreous sponge, there is a vitreous substance sometimes found in the human eye. Wares marketed under the name of vitreous china, semi-vitreous china, S-V china, and similar brands are usually made of a hard, dense, earthenware body of considerable porosity, the only part that is truly vitrified being the surface glazing. As a result, ware of this character is liable to craze when subjected to extremes of heat and cold; when chipped, it becomes discolored and unsanitary because of absorbency.

Test for Vitrified China

A very ready, yet severe, test of china is to take a broken piece of ware, dip it into your ink bottle, and watch the result; if non-vitrified, the ink will have traveled into the porous body and will show to some extent through the unbroken vitrified glazing. Another test is to mix animal fat and vinegar, half fill a piece of ware and place in an oven for a few days where it will be subjected to changes of heat. In making this test use a chipped or cracked piece of ware.

Durability is intensified by vitrification, because of greater resistance to rough usage and extremes of temperature necessary in service and cleansing, also because a piece of porcelain or true china may be continued in use after it has been severely chipped—being vitrified, the broken or chipped surface is easily cleansed. Attractiveness is strongly brought out by vitrification because of the attending translucency which absorbs and

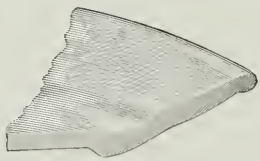
reflects atomic light, giving a sheen, which is not present with an opaque body.

Shape and weight is a question of individual opinion and taste, yet round, plain shapes are the most desirable because they have greater uniformity of resistance, are more easily cleansed, more economical of space on tray and table, and more easily handled. Square, fluted, scalloped, and festooned shapes should be avoided for institution service. A first trial will usually be convincing. Plain, solid, non-embossed, well rounded handles are the most serviceable. Shapes of bowls and similar pieces should be selected with a view to stacking easily. The foot of each piece should fit on the inside bottom of the under piece, not binding on the edge, thus bringing a very common cause of breakage to a minimum.

Flat ware, plates, dishes, saucers, etc., are made in several weights to serve individual ideas: dinner weight, which is made very light; banquet weight, which is made heavier in body with edge similar to dinner weight; round edge, rolled edge, welded edge, made with body weight a little heavier than banquet weight, with strengthened edge to resist chipping; double thick is the heaviest weight, made for quick service where care cannot be exercised in handling. Round edge is the most generally used, because the edge carries the resisting strength of the double thick, is not so heavy in serving, possessing a more attractive appearance.

Underglaze Decorations Last

Underglaze decorations are the only guaranteed lasting decorative treatments, because they are executed on the bisque body before being glazed. This class of work never changes by use, the decoration lasting as long as the individual piece of ware. Underglaze treatments are



Cross Section Illustrating Rolled Edge China.

made in a great variety of designs and colors, under three headings: plain print are made from engravings on copper or steel, and sometimes from etchings on zinc; line treatments are free-hand decorations; decalcomania are made by using mineral transfers made by a special lithographic process, permitting the use of many colors, giving strong contrasts or monochrome effects. The best results are obtained with colors based on minerals that are readily controlled when subjected to the vitrifying heat of the kilns.

Blue is the least desirable in underglaze decorations, not being a still color, it is likely to flow, making irregular lines or running into other colors of the design, thus taking away the sharpness of line which is desirable in most designs. Colors such as pink, purple, and kindred tones require a special glaze and treatment in underglaze effects, very often giving disappointing results. Gold of any kind or preparation cannot be placed under glaze. Underglaze monograms, crests, and badges are quite an addition to cost of production because of loss in kilns; "seconds" or "thirds" are practically of no commercial value when carrying a crest or monogram; consequently, the cost of production must be figured to include the possible loss in process of firing.

Overglaze decorations permit of almost unlimited variety in design and combinations of colors. Some colors wear longer than others. In the end, all colors and gold will slowly wear off, and wear off quickly if strong compounds and soaps are used in the washing, and rough, coarse towels are used in the drying. The best way to cleanse china is to put it through a final rinsing water that is hot, then place the ware on racked table or cage, that it may properly drain, allowing the heat of the ware to dry the surface, thus avoiding the friction of towel drying in the usual way. In following this suggestion, the life of a rich overglaze decoration, particularly gold, may be greatly lengthened.

Many kinds of gold are used in overglaze decorations, some manufacturers stamping their product as eighteen carat gold. This is a mistake, because gold of such grade is too soft to wear well. The best wearing gold is a true coin gold, United States alloy, which will possess the same wearing qualities found in United States coins. This is the kind of gold used by reputable manufacturing potters, being thoroughly and severely tested before shipment is made, thus insuring satisfactory service if the user will take the same care in using a piece of richly decorated china that he would expect to give a piece of rich cut glass.

There are two generally used processes in producing porcelain or true china. One is to vitrify in the bisque or first fire; the other is to just bake, at low heat, in the first firing. It is generally conceded the process which vitrifies in the bisque produces the most durable ware. The uninitiated may readily distinguish the different process in taking up a plate or saucer. The bisque vitrified piece will carry three pin marks on the under side near the rim or edge. The soft fire bisque will not show any pin marks; the foot of the plate will not be fully glazed, having a dry bisque appearance to the eye and touch.

In writing these lines, there has been no consideration of hard paste porcelains or bone china, because these two productions are beyond the reach of the average institution, being classed by the potter as diamonds, rubies, and emeralds are classed by the connoisseur of precious stones.

In selecting decorations for hospital use in service to the patient, great care and judgment should guide the purchase in securing something that is neat, unobtrusive, and refreshing. Nourishment served on tastefully decorated china often possesses an appetizing flavor that could not be secured in any other manner. A dainty china service on the tray is in keeping with a beautiful bouquet of flowers on the bedside stand. As a closing suggestion, we wish to give a word for the benefit of the nurses. In many hospitals the nurses' dining room is anything but cheerful, the food none too pleasing or well served. There is seeming evidence that any old thing will do for the nurses. This is a mistake. The modern hospital is now, in a great many instances, providing the nurses' table with a special service of china, something bright and cheerful that lends a joy to the time spent at the table, thus aiding digestion, which means added cheer at the patients bedside. Cheerfulness and contentment are needed in every hospital.

It is a good investment to buy vitrified china, a white service, if vitrified, is more to be desired than a richly decorated service that is not vitrified, and is therefore unsanitary. A menu of ordinary food served on true china is likely to be more satisfying than food fit for epicures served on ware that looks, and is, sham china.

To be discontented with the divine discontent, and to be ashamed with the noble shame, is the very germ of the first upgrowth of all virtue.—Kingsley.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.

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FIND GREAT NEED OF RURAL CLINICS THROUGHOUT COUNTRY

THE Council on Health and Public Instruction of the American Medical Association has issued an important program, including the following recommendations for assisting physicians in rural districts:

"The Council on Health and Public Instruction believes that the American Medical Association should take steps to secure the following results:

a. To assist local medical practitioners by supplying them with proper diagnostic facilities.

b. To provide for residents of rural districts, and for all others who cannot otherwise secure such benefits, adequate and scientific medical treatment, hospital and dispensary facilities, and nursing care.

c. To provide more efficiently for the maintenance of health in rural and isolated districts.

d. To provide for young physicians who desire to go to rural localities, opportunities for laboratory aid in diagnosis.

e. The Council believes that these results can be best secured by providing in each rural community a hospital with roentgen ray and laboratory facilities to be used by the legally qualified physicians of the community. The secretary of the Council was requested to study the laws of the different states bearing upon this subject and to prepare a model bill to be studied more fully at the meeting of the Council in March, 1921."

This program was published in the *Journal of the American Medical Association* for December 4, 1920.

Data published by the New York State Department of Health show that information received from sixty rural districts in thirty-three counties indicate medical service either inadequate or not procurable. More than half the informants were residents not serving in an official capacity; the balance were public officials and physicians. The report continues: "In several counties one or two townships were in need of physicians, in two counties five townships each were reported, and in one, Delaware County, nine townships were in need of medical service. The population of these districts varies from 500 to 6,000, the nearest physician being from three to twelve miles distant. The average fees which are paid in these places range from $1.50 for a local visit, with twenty-five cents for each additional mile, to from $15 to $35 a visit."

In Virginia is found a somewhat similar situation. It has been shown that in five counties of the state there are 3,000 or more people for each doctor. The condition is causing alarm. The state health commissioner brought the matter to the attention of the Governor, who has requested the Board of Medical Examiners to make an investigation, and present recommendations.

The *State Nurses' Bulletin* for January (published by the New York State Department of Health) contains a paper presented at the convention of nurses, by Dr. Edmund C. Boddy, director of group consultation clinics, New York State Department of Health, on group consultation service for rural physicians. Dr. Boddy said in part: "The actual number of physicians in the rural districts of New York, embracing twenty counties, decreased in 1920, 12 per cent from the number in 1919, while the population increased 4.4 per cent during the same period. To provide qualified physicians for such communities is a possible means of relieving the situation. To supply to rural physicians the necessary facilities for satisfactory work is another problem and one requiring early solution. To this end group consultation clinics have been conducted by the state department of health during the past six months in several of the rural counties.

The essential features of these clinics are a well equipped diagnostic field laboratory and x-ray service, and a body of qualified consultants representing practically the whole field of the practice of medicine and surgery, including pediatrics, orthopedic surgery, diseases of the respiratory system, of adult life, neurology and psychiatry, surgery and gynecology, the venereal diseases, and oral hygiene. At these clinics patients may be referred from one consultant to another for examination and opinion, the supervising nurse and her assistants aiding in the development and conduct of the work. The entire findings, including laboratory reports, are reviewed and coordinated by the director of the clinic in order that the situation may be seen in its entirety. Final reports are sent to the physicians who have made use of the service.

The technic of preparing for the clinics has been modified as experience in their conduct in successive counties has suggested desirable changes, but the essential features have remained.

The locality is selected after conference with persons who know intimately the different counties of the state and their individual and relative needs. The director of the clinic and assistants visit all of the practicing physicians of the district to be covered, in order that the true nature of the assistance offered may be understood. Every local public health and social agency is also visited and its cooperation solicited in preparing for and conducting the clinic. The director arranges with the con-

sultants who are to be in attendance, and is responsible for the completeness with which the physicians are informed and assisted to make use of the service, for the records of the findings of the consultants in their examinations and conferences, for the ultimate reports of the final decisions and recommendations in each case, and for the transmittal of these to the patients' physicians. It has been definitely decided that only patients who are brought or sent by a physician will be examined.

The traveling diagnostic laboratory is established a week or ten days in advance of the clinic in order that physicians may send in specimens before the clinic opens. History blanks are also provided beforehand to the physicians for the purpose of giving opportunity for the preparation of the histories of the cases. The nurses aid the physicians in collecting specimens for the laboratory, in taking the case histories, and also assist the patients to prepare for examination. The entire service is on the same ethical basis as any consultation; therefore patients are visited by the nurses only at the request of their physicians.

Usually a school building is secured as headquarters for the clinics. The state supervising nurse, with the aid of local and other nurses, is responsible for the details of preparation which transform the building into a temporary group diagnostic clinic; for the disposition of space, equipment, etc.; for a nurse to assist each consultant; and for provision for the transportation and comfort of the patients. No preclinic publicity is now being given other than to inform the physicians and the local cooperating agencies.

On the evening following the clinic a meeting of the consultants and the attending physicians is arranged, at which time the more interesting and unusual cases are discussed, the family physician stating the history, progress, and treatment of the case prior to its presentation for group consultation. The findings of the various consultants and the case history are reviewed in the light of laboratory findings, after which the consultant who first examined the patient makes up the final report and recommendations. These are sent by the director of the clinic to the physician who has care of the patient. The ethical relation of consultant to physician is that observed in consultations in private practice.

The educational value of these group consultation clinics to rural communities should be even greater than their immediate value to the individual physicians in the treatment of their patients, great as the latter must undoubtedly be. These clinics may enable the rural practitioner to obtain a definite diagnosis in some obscure cases and may also result in inducing more agricultural and industrial people to go to their physicians for an annual medical examination. Practicing physicians will appreciate more clearly the necessity of utilizing the public health nurse for that sort of follow-up supervision which is absolutely essential in the continuation of treatment over long periods; for without this follow-up the value of accurate diagnosis in many cases will be negatived. A growing understanding and a sentiment in favor of preventive methods will lead to appropriations for child health stations not only for the school child but for the instruction of mothers and their younger children. Results of prevention and early correction of defects will be seen in the increasing vigor of the children and youth of the community. Rheumatism, heart trouble, and nervous affections will lessen. In the hope of securing actual results from their efforts, well qualified physicians may be induced to take up the practice of medicine among rural people, since not a few physicians find great personal satisfaction in general practice in the open country.

The clinics also carry postgraduate training to both physicians and public health nurses, for these groups of consultants from the faculties of the different medical colleges are able to demonstrate the latest scientific work in their own and other schools. The contact of the public health nurses with the consultants and the staff from the various state departments, their cooperative and coordinated work, without which the preparation for and conduct of the clinic would be impossible, and the better understanding by each of the other's field and the work thereof, will result in mutual growth and better service not only to the communities directly affected but to the state as a whole."

SHOWING GROWTH OF DISPENSARIES

Rapid advance in dispensaries throughout the country is well illustrated by the following partial list of new institutions and new clinics opened during the past three months. Undoubtedly there are many more which have not come to the attention of the Dispensaries and Out-Patient Departments of THE MODERN HOSPITAL. Even this list totals 119.

General Clinics. (15)
- Aberdeen, S. D.
- Charlotte, N. C.
- Grand Rapids, Mich., by Knights of Columbus Welfare Board, at St. Mary's Hospital.
- Greensburg, Pa., at Westmoreland Hospital.
- Hagerstown, Md., by Washington County Public Health Association.
- Macon, Ga., Pumpelly-Massenberg Clinic and Sanatorium.
- New York City, Judson Memorial Center.
- Niagara Falls, N. Y., Mount St. Mary's Clinic.
- Norfolk, Neb., at Verges Sanatorium.
- Los Angeles, Cal., University Hospital Medical College and Clinic.
- Ogden, Utah.
- Pasadena, Cal., Pasadena General Hospital.
- Schenectady, N. Y.
- Washington, D. C., for government employees.
- West Nashville, Tenn., St. Luke's Hospital Settlement House and Clinic.

Tuberculosis Clinics. (17)
- Anderson, S. C., by Piedmont Tri-County Tuberculosis Association.
- Brooklyn, N. Y., Bay Ridge Tuberculosis Clinic.
- Great Falls, Mont., by Health Department.
- Greensburg, Pa., by Westmoreland Hospital.
- Indianapolis, Ind.
- Laconia, N. H.
- Niles, Ohio, by Trumbull County Medical Society.
- Philadelphia, six night clinics for industrial workers, by Philadelphia Health Council and Society for Prevention of Tuberculosis.
- Redlands, Cal., by Associated Charities.
- San Bernardino, Cal., by County Tuberculosis Association.
- Michigan, clinics established, especially for Indians.
- Montana, by Cascade County Medical Society and Health Department.
- Ohio, tuberculosis clinics part of spring health program.

Child Hygiene. (37)
- Creston, Iowa, for crippled and mentally backward children.
- Durham, N. C., at Edgemont Baptist Church.
- Eureka Township, Iowa.
- Lawrence, Mass., at Child Welfare Office.
- Manchester, N. H., by District Nursing Association.
- Miles City, Mont., in charge of county nurse.
- Massachusetts, infantile paralysis clinic, by Department of Health and Harvard Infantile Paralysis Commission.
- Milwaukee, Wis., twenty-nine nutrition clinics, in schools, by Health Department.
- Philadelphia, school nutrition clinic, first of four, by Philadelphia Health Council and Tuberculosis Committee, with White Williams Foundation.

Infant Welfare. (3)
Buffalo, N. Y., by Buffalo Hospital.
New York City, prenatal clinic by Mulberry Community House, of the Association for Improving the Condition of the Poor.
Portland, Ore.

Mental Hygiene Clinics. (5)
Dayton, Ohio, by Montgomery County Humane Society.
Glens Falls, N. Y., by Board of Health.
Jacksonville, Ill., by St. John's Hospital.
New York City, by St. Joseph's Hospital.
Philadelphia, for members of Bureau of Police.

Venereal Disease Clinics. (25)
Cleveland, Ohio, by Mount Sinai Hospital.
Plattsburgh, N. Y., by Board of Health.
Province of Alberta, Canada.
Indiana. Twenty clinics established.
Montana, by Cascade County Medical Society and Health Department.

Health Centers. (24)
Buffalo, N. Y.
Portsmouth, N. H., under Board of Health.
Seattle, Wash., twenty health centers, under Red Cross.
Spokane, Wash., under Red Cross.
Troy, N. Y.

Miscellaneous Special Clinics. (13)
Asthma, New York City, at New York Hospital.
Diagnostic, Raleigh, N. C., at Elizabeth Hospital.
Eye and Dental, Chicago, by Health Department.
Eye, Ear, Nose, Throat, Dayton, Ohio, St. Elizabeth's Hospital.
Hookworm, Milton, Fla., State Department of Health.
Narcotic, Durham-Orange, N. C.
Narcontic, Durham-Orange, N. C.
Radium, Paterson, N. J., Nathan and Miriam Barnert Memorial Hospital.
Radium, Salt Lake City, County Community Clinic and Dispensary.
Stutters, Jersey City, N. J., School for Crippled Children.
Trachoma, St. Louis, Mo., by United States Public Health Service.

Traveling clinic for eye, ear, nose, throat, dentistry, and hookworm, established in Florida, by State Department of Health.

Two traveling clinics established in Nova Scotia.

PREVENTIVE HYGIENE IN INDUSTRY

The investigation recently begun by the U. S. Public Health Service into the causes and prevalence of skin diseases arising from occupational hazards is already yielding interesting fruit. Most striking of all, so far, is the discovery of the number of plants where many employees are suffering from occupational diseases, most of them skin, without either the plant physician or the men themselves realizing that their trouble is more than individual.

"In one plant," said Surgeon General Cummings, "where khaki cloth was made up, inspection by Public Health Service representative disclosed a woman who complained to the plant doctor that a slight cut from her scissors had given her eczema; a boy who carried bales of the cloth on his shoulders who complained that the dust from the bales had given him the same disease; and a very large number of women stitchers, whose duties compelled them to handle and sew the cloth continuously, who were suffering with inflammation of the mucous membranes of the eyes. Analysis of the dust showed that it contained a large percentage of chrome yellow and sulphur dioxide. Steps are now being taken to reduce the dust hazard."

In another plant, where a thousand men were working on machines where they were exposed to large amounts of "cutting" oils, superficial investigation showed that about a fourth of those examined were suffering from eruptions and other skin troubles. Neither the doctor nor the men had ascribed the trouble to the oils. Simple methods of preparing for work and of cleaning up at the end of each shift were prescribed, and resulted in a marked decrease in the number of men affected.

In another plant where cutting oils were also used in large amounts, the plant doctor said that there had been a good deal of skin trouble, but that it had suddenly disappeared some weeks before from some unknown cause. Investigation showed that it had disappeared because the foreman, worried by the suffering of the men and their lessened production, had insisted on their anointing their hands with vaseline before they went to work and washing them with antiseptic soap at closing time. Skin troubles seem to be typical where cutting oils are used in any quantity.

How greatly the manufacturers as well as the men appreciate the work that the Public Health Service is doing is shown by two characteristic instances. A young physician who had charge of the medical and surgical relief work of a plant asked the Public Health Service doctor how he could make his employers raise his $1,200 a year salary. The doctor told him that he was already being paid $300 a year too much, for he was doing no more than the $900 nurse who worked with him could do by herself. "Study the needs of your plant," advised the Service man, "investigate the causes of accidents and of head aches and colics; suggest to the management ways whereby these may be reduced and the lost time saved; and see what will happen." Six months later the plant physician told the Service doctor that he had acted on the advice, and that his employers had doubled his salary in consequence.

Still more illustrative of the value of preventive hygiene is the case of a high-priced man, who at the insistance of the vice-president of a large manufacturing company, resigned from the Public Health Service, by which he was employed, in order to supervise the health of the workers in the company's factories. Later, the vice-president resigned; and the other officers, who had taken little interest in the health work, seriously considered dropping it. They broached the subject to the medical director, who produced his records and charts and clearly demonstrated how greatly accidents, illnesses, and absenteeism, and turnover of employees had been decreased in direct consequence of his work. Not only did the company continue the work, but they promptly voted the doctor a thousand dollar increase in salary.

PUBLIC HEALTH SERVICE INSTITUTE ATTRACTS VARIED PROFESSIONS

The nature of the attendance at the institute of the Public Health Service on venereal disease control, recently held in Washington, furnishes striking evidence of the fact that modern warfare on disease is not exclusively nor even chiefly medical. Prevention, in disease, as in everything else, is now considered even more important than treatment; and prevention is very largely a social problem, in solving which every class of the community has its part. Thus, the institute, which conducted two weeks' intensive training for 511 medical men and women and social workers, who had come from all parts of the continent to familiarize themselves with the recent marvelous advances in both the medical and the social aspects of the twin diseases, had among its students more than a hundred physicians of high standing, forty-eight directors of clinics, forty-seven nurses, twenty-two police women, fifteen educators, and about fifty national, state, and city health officers, editors, travelers-aid secretaries, athletic directors, Y. M. C. A. secretaries, and representatives of other important social agencies.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
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THE ELEMENTS OF SOCIAL "FOLLOW-UP"

IN controlling the spread and preventing the development of sequelae of the venereal diseases, health departments, directly through their bureau dealing with communicable diseases, and indirectly through cooperation of the physician, hospital, clinic, and social worker, should make continued effort to see that the patients understand and appreciate the importance of long continued treatment and observation until a cure is determined by the medical attendant.

This can be done by means of educational material, such as public lectures, motion pictures, pamphlets, placards, and other publicity methods; combined with the establishment of well organized clinics in clean, orderly, and well conducted treatment quarters. All of these factors must be coordinated by a physician efficient in the administration of treatment, human in his attitude toward the patient, and broad in his understanding of the individual and his relation to public health. Such a man knows his responsibility and proceeds to do his duty by explaining to the patient, upon the first visit, the serious nature of the complaint, and emphasizing the necessity of conscientious, continued treatment.

"Follow-up" methods of varying degree are in use, from a simple notice of failure to keep an appointment, to quarantine and isolation and, if necessary, arrest and incarceration. The latter are required for some individuals when all other methods fail.

Clinics, hospitals, and physicians in private practice have found that the simple request card replaces under treatment a majority of the delinquent patients whom community educational work and thorough instruction at the first visit fail to influence sufficiently.

The following forms are a composite based upon many different form letters, postal cards, and other records used by various clinics, hospitals, and physicians throughout the United States.

Mr..... .....
..... No.....
You are requested to return on or before.....
You were not cured at your last visit.
You need further treatment or observation.
For your own good and the protection of others this card is sent to you.
Kindly answer this note.
.....M.D.

If the patient does not return or respond to the first notice, a second notice is sent, for which the following form is suggested:

Mr..... .....
..... No.....
You were requested to return on or before.....
Will you return on.....
You were not cured at your last visit.
You failed to keep this appointment or to notify us in any way. If you are under competent medical care, we are satisfied. Failure to notify us of your present arrangements for medical care will force us to report you to the Division of Health.
For your own good and the protection of others this card is sent to you.
Kindly answer this note.
.....M.D.

With this second notice a number of clinics are sending a postal card, addressed to the clinic, with the following form printed upon it:

Date.....
Why have you not been coming to the clinic regularly, as advised?
.....
When will you come back to the clinic?
.....
Are you under the care of any other doctor?
.....
If so, who is treating you?
.....
.....
Name.....

If the patient does not return or respond to the second notice, a third or final notice is sent, stating that failure to return will compel the clinic or physician to report him to the health department on a certain date, in compliance with the law.

The first notice should never be delayed beyond a week after failure to keep the first appointment. The second notice, to carry proper weight, should be sent on the date of failure to meet the new appointment. The third notice, which warns of the official police power of the health department, should again be timed at a weekly interval.

"Follow-up" notices of this character should be sent out in sealed envelopes as first class mail, with a return address for the purpose of checking the accuracy of the given place of residence. It is deemed advisable, for purposes of privacy, to have only a street address on the envelope, not an identifying institutional name.

Any efficient plan for holding individuals to treatment and observation until cured requires that patients be educated to understand the need for continued treatment, the advisability of notifying the doctor when unable to keep an appointment, the power possessed by the health department, and the likelihood of action by the clinic or physician when necessary.

THE CLINIC AND ITS DIRECTOR*

The venereal disease clinic will be what its director makes it. Here, as nowhere else, personality is everything. No matter how great the technical skill of the medical director, if he is not actuated by the motive of genuine service, his work will fall short of the greatest possible achievement. He will sink into a mere routinist, his attendance and service become perfunctory, and the real service to the infected individual and the community in which he lives will be but a shell of what it should be.

If the clinic, and that really means the director, functions properly, it stands as a bulwark between a loathsome, destructive disease, and an unprotected public. Its activity should be all-embracing—curative, educational, and prophylactic. In no other line of public health work can we find such gratifying results as will come from the proper and efficient administration of a venereal disease clinic.

An optimistic attitude founded on a knowledge of the subject, and an earnest devotion to duty, will pay handsome dividends in health, wealth, and a sense of duty nobly done. The venereal disease clinic offers an unparalleled opportunity for the rendering of high class medical service, the administration of an all important public health function, and a chance to discharge a sociological obligation found in no other field of private or public activity.

ANNOUNCE BOOK ON DELINQUENT WOMEN

The Bureau of Social Hygiene announces the publication of a book entitled, "A Study of Women Delinquents in New York State." The authors of the book are Dr. Mabel R. Fernald, assistant professor of psychology, University of Minnesota, formerly director, Laboratory of Social Hygiene; Dr. Mary H. S. Hayes, formerly psychologist; and Almena Dawley, formerly sociologist of the Bureau of Social Hygiene. The book includes a statistical chapter by Beardsley Ruml.

Dr. Katherine B. Davis, general secretary of the Bureau, has written a preface in which she says:

"The Laboratory of Social Hygiene maintained for six years by the Bureau of Social Hygiene in cooperation with the State Reformatory for Women at Bedford Hills, grew out of the recognition of a practical need in the actual handling of delinquent women if a maximum number were to be returned to society prepared to lead a self-supporting, law-abiding life. As a result of experience it was believed that before one could apply methods of treatment with any certainty it was necessary to have an accurate diagnosis of the individual's case, taking into consideration social, physical, and mental factors. Such case studies of the social and mental aspects, begun with the women committed to the State Reformatory at Bedford Hills and extended to other groups of delinquent women in New York state, forms the basis of the work presented in this volume."

*Taken from the Social Hygiene Monthly for January, 1921, of the Division of Social Hygiene, Department of Public Health, Springfield, Illinois.

JAMES BUCHANAN BRADY FOUNDATION ESTABLISHED

The late James Buchanan Brady (Diamond Jim) after making many bequests, left the residuum of his estate to the New York Hospital, for the purpose of establishing the James Buchanan Brady Foundation for Urology. In his will he stated that Dr. Oswald Swinney Lowsley be the first director of this department.

The trustees of the Hospital opened the second floor in the private pavilion as the indoor part of this department on December 15, 1920. Quarters for the out-patient department were assigned in the dispensary of the hospital. In addition there are two cystoscopic rooms adjacent to the x-ray machine.

There have been appointed six chiefs of clinic, each of whom has two assistants with the title of deputy urologists. Each chief and his two deputies have charge of the clinic from 7 to 9 p. m. and from 10 to 12 a. m. the following morning. The idea of this arrangement is that patients requiring special investigation who are found in the rather busy night clinic may be referred back to the same group of men the following morning for such special investigation.

Once each month there will be a meeting of the entire staff which holds a return clinic for patients operated upon and discharged, for interesting cases discovered in the clinic, and for a review of the current urological literature. Thus far attendance at the clinic has been particularly satisfying.

FREE CLINICS FOR THE TREATMENT OF VENEREAL DISEASES IN 1920

The following is a list of the clinics at hospitals and dispensaries giving free treatment for venereal diseases:

State—	Population 1920 census	No. free clinics in 1920
Alabama	2,347,295	10
Arizona	333,273	..
Arkansas	1,750,995	3
California	3,426,536	24
Colorado	939,376	7
Connecticut	1,380,585	6
Delaware	223,003	2
District of Columbia	437,571	8
Florida	966,296	11
Georgia	2,894,688	7
Idaho	431,826	..
Illinois	6,485,098	24
Indiana	2,930,544	17
Iowa	2,403,630	10
Kansas	1,769,257	6
Kentucky	2,416,013	12
Louisiana	1,797,798	4
Maine	768,014	5
Maryland	1,449,610	11
Massachusetts	3,852,356	18
Michigan	3,667,222	13
Minnesota	2,386,371	5
Mississippi	1,789,384	4
Missouri	3,403,547	7
Montana	547,593	2
Nebraska	1,296,502	9
Nevada	77,407	..
New Hampshire	443,083	3
New Jersey	3,155,374	11
New Mexico	360,247	2
New York	10,384,144	73
North Carolina	2,556,486	11
North Dakota	646,730	3
Ohio	5,759,368	26
Oklahoma	2,027,564	9
Oregon	783,389	2
Pennsylvania	8,720,159	102
Rhode Island	604,397	6
South Carolina	1,683,662	8
South Dakota	635,839	3
Tennessee	2,337,459	7
Texas	4,661,027	8
Utah	449,446	5
Vermont	352,421	2
Virginia	2,306,861	11
Washington	1,356,316	4
West Virginia	1,463,610	7
Wisconsin	2,631,839	11
Wyoming	194,402	..
Totals	105,683,108	539

MOTION PICTURES COVER HEALTH FIELD

A list of two hundred and twenty-one motion pictures on health, covering a wide range of subjects from cancer and child hygiene to mosquitoes, sleeping sickness, and venereal disease, has been compiled by the Health Service Department of New York County Chapter American Red Cross, for reference by public health agencies of the country which are desirous of giving publicity to certain phases of public health through the medium of the film.

The list which, so far as can be discovered, is the first of its kind to be compiled, comprises a title descriptive of the subject matter; the name of the distributor of the film; the terms under which the film may be obtained, whether by loan or by purchase; and the number of reels.

OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

FORWARD MOVEMENT OF THE BOSTON SCHOOL OF OCCUPATIONAL THERAPY

The following is a letter from the Boston School of Occupational Therapy, Miss Marjorie B. Greene and Miss Ruth Wigglesworth, principals. Note the reference to prescribed work for infantile paralysis convalescents.

Twelve regular students are at present enrolled in the Boston School of Occupational Therapy. The course now covers a period of twelve months, the first eight of which are given to the thorough study of handcrafts, and medical and social service details involved in the work, the last four months, approximately, being devoted to actual practice work in the field. The field work is divided between the different types of hospitals, psychopathic, general, and tuberculosis, and experience in social service and district work.

Owing to the increased demands not only for trained occupational therapy aides, but for a central spot to which the different organizations may send convalescent cases between the time of their discharge from the hospital and their return to work, the Boston School of Occupational Therapy has also opened a work shop.

This work shop, under the supervision of a graduate aide, is receiving cases from the Industrial Accident Board, the Travelers Insurance Company, Family Welfare, (Associated Charities), District Nursing Association, and hospital out-patient departments.

A branch known as the District Occupational Therapy Department is also, under the same supervision, taking care of patients who come from the same sources, but are confined to their homes. This is essentially curative work, mentally and physically, and at the same time of decided economic value, as it hastens the recovery of the patients and their return to their former occupations, or assists them to learn a new vocation if that is necessary.

It has proved already of great assistance to charity organizations, teaching patients work which is not only curative, but of money value as well. This work is sold for them through still another activity of the school, a bureau organized and known as the Bureau of Occupational Therapy, for the buying and selling of materials, and the exchange of ideas and designs among the aides throughout the country, also making a connecting link between needs of the purchasing public, work shop, and district work.

Another very important work is being undertaken by the school at the present time, at the request of the Harvard Commission for Infantile Paralysis that we work in close cooperation with them in hastening the convalescent period of their paralytic children. If the children learn to use their faculties as soon as the stage of acute sensitiveness is past, they can be brought back to a more normal condition, but if an effort to re-educate their muscles is not made within eight months or a year it is almost impossible to regain their normal use. Work is being done with these children in their homes, giving them simple and carefully planned crafts to stimulate action.

Through the urgent demands involved in these various activities the school held a meeting in November, at which representatives of all groups were present to discuss the advisability of forming a state society to avoid duplication, and to bring together all persons and associations interested in the subject. The meeting voted to form such a society, to be known as the Massachusetts Association for Occupational Therapy.

WHAT WILL THE STATES DO FOR THE CIVILIAN HANDICAPPED?

From now on, everyone interested in the rehabilitation of the civilian handicapped will be watching to see what the states will do with their opportunity. On June 2, 1920, the Fess-Kenyon Bill providing for Federal and state cooperation for such work was approved by the President. Under this law the initiative rests with the states, which act through the boards of vocational education. Plans made by them must be approved by the Federal Board for Vocational Education, which is in a position to guide and to set high standards. The Federal appropriation is to be allotted to the several states on a basis of population, but the state must expend for the purposes of the Act, an amount equal to that allowed by the government.

Within a short time after enactment of the above law, eleven states accepted its provisions through action by their governors. During the present legislative sessions there will be, undoubtedly, a widespread consideration of the subject. Altogether, twenty-four states have taken some legislative action toward assuming the responsibility of providing to the residents, handicapped by industrial or other accident or disease, an opportunity to become again self-supporting, normally efficient workers.

Some of the laws passed allow for comprehensive schemes for dealing with the problem. The execution of them is in some instances hampered by scant appropriations, but the contribution by the Federal Government may lend sufficient encouragement to prevent such a circumstance from becoming a serious bar to progress.

The methods of accomplishing the desired results will vary. There is some indication that the medical and physical side may be stressed in one place, while in another there will be more emphasis upon the educational aspects. No one phase should be neglected. The field, broadly stated, includes medical and surgical treatment, occupational therapy, vocational guidance, vocational training or re-education, and placement.

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WOMEN'S CLUBS BECOME INTERESTED IN OCCUPATIONAL THERAPY

One of the most significant steps in the progress of occupational therapy has been the interest and action taken by the General Federation of Women's Clubs. Mrs. Eleanor Clarke Slagle, executive director of the New York State Society for the Promotion of Occupational Therapy, has been made chairman of the occupational therapy committee of the General Federation. The recommendations of the board of directors of the General Federation go to the state presidents, who, upon Mrs. Slagle's recommendation, appoint a state chairman of occupational therapy.

The influence which such a powerful organization as the Federation of Women's Clubs will exert cannot be too greatly appreciated. Legislation in behalf of state institutions better equipped to provide occupational therapy; the interest of a wide and informed public; and the adoption of occupational therapy in hospitals in all communities, will be some of the results to be expected from this new impetus.

The following are among the suggestions accepted by the board: "Occupational therapy is directed activity, and differs from all other forms of treatment in that it is given in increasing doses as the patient's condition improves. The distinction between occupational therapy and vocational training is that in the former the movements or exercises are given as treatment, the finished article produced being of secondary consideration. In vocational training, the essential emphasis is placed upon the finished article, the making of which is taken as a means of training towards a livelihood.

"The great value of occupational therapy is, however, in counteracting the tendency of hospital life to cause patients who must spend a long period of convalescence to submerge initiative, ambition, and a purpose in life, and to encourage folded hands and dependence.

"The following are some of the functions which a state chairman of occupational therapy might well include in her duties: First, to appoint a sub-chairman in each district to report on: (a) Is occupational therapy employed as a form of treatment in the state hospitals for mental and nervous diseases in her district? (b) Is occupational therapy employed as a form of treatment in the state, municipal, or county sanatoriums? (c) Is occupational therapy employed as a form of treatment in general hospitals? (To include information on the types of cases, with special emphasis on cardiac, orthopedic, and industrial accident cases.) (d) Under a, b, and c it would be useful to inquire if there were any special reasons why occupational therapy is not employed in any institution in which it is not being used.

Second, to secure data relative to the so-called "shut ins" or home bound cases in the districts; as to their number, the extent and nature of social service work undertaken for them, etc.

"If the district includes cities of any size, the sub-chairman might appoint investigators to report upon some particular phase of the work outlined above. For example, one investigator might undertake to report upon industrial cases needing prosthesis (braces and other artificial appliances). In making the study of the district, it is well to use statistics compiled by existing agencies, as churches, settlements, visiting nurses' organizations, school nursing associations, principals of schools, and local physicians. For instance, in New York City a recent compilation of figures shows that there are about 36,000 orthopedic cripples in the city. Of that number, 50 per cent are under sixteen years of age, for the majority of whom training in some industrial occupation is feasible, if suitable teachers and funds for carrying on the work with such teachers can be procured; the cripples can be graded through occupational therapy to reach industrial work, and thereby become partially if not entirely self-supporting.

"Your club, as a group, cannot well undertake any intensive study of the factors that produce cripples, but many existing agencies can give information on that subject. It can, however, through occupational therapy, become a large factor in reducing the convalescent period of all types of patients. By means of occupational therapy, patients in state hospitals for insane and nervous cases can be definitely re-educated, and it can also become a large factor in tuberculosis sanatoriums."

It is suggested that the local chairman consult with state mental hygiene societies, state and national tuberculosis associations, and local and state charity organizations. Women's clubs throughout the state might well take up the matter of scholarships and fees for instruction of occupational therapeutists.

PATIENTS MAKE ATTRACTIVE TOYS

These are some of the toys made by occupational therapy patients connected with The Artificers' Guild Agency, in Cambridge, England. The young man who makes the farms, shepherds, and dogs, was brought in to the Guild in 1914, in a wheeled chair, not able to lift his hand to put on his cap. He now walks with a cane only, and last summer he gave a demonstration of his work at the Horticultural Hall. He was crippled by arthritis, and the doctor attributes his cure to the toy-making. The light foot fretsaw helped his legs, and it is wonderful what he can do with his hands. He is earning about £3 a week, and is bright and keen. There is so much variety in the toy work that his interest never flags. The tigers, etc., are made by a pupil who has set up a little industry in the village. She would have been an artist, but the war ended that, and in the midst of great trouble, the toys have been the saving interest of her life. Teachers have written in to the Guild to say, "The toys have brought new life to the makers of them."

He who has not health has nothing.—Rousseau.

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THE END RESULT OF THE CURE

By ELIZABETH UPHAM DAVIS, Milwaukee, Wis.

OCCUPATIONAL therapy was heretofore considered an experiment. It was a vision, and one only dared to hope that the success attending the early efforts would be substantiated by extensive trial. These hopes have been more than fulfilled. No longer is it necessary to anticipate the therapeutic value, or the inspired morale attending properly regulated work. These have become facts beyond dispute.

Out of the wealth of experience gained from the work of rehabilitation of the war victims, has grown a definite knowledge of the field and possibilities of occupational therapy. Certain lines are particularly suggestive of development, and have an especial significance in the rehabilitation of the tuberculous. Chief among these is the practical nature of the occupations for the tuberculous. Where the occupation in itself cannot directly prepare the patient for his future vocation, it nevertheless leads him toward training or employment. Thus, occupational therapy is more than therapeutic and more than inspirational. It has an economic bearing upon the future of the patient.

The precedent for this new conception of the purpose of occupational therapy is to be found in the record of the reconstruction of the soldiers suffering from tuberculosis.* In April, 1919, approximately six thousand were treated in seven sanatoriums.

The men were occupied as follows: 2,941, handicrafts; 725, play and out of doors; 1,932, commercial, professional or technical subjects (carpentry, shoe repairing, motor mechanics, agriculture, gardening, stock raising); 339, instruction in languages, etc.; making in all 5,937. This number may be slightly exaggerated by the fact that one man may be counted more than once if enrolled in more than one subject.

Handicrafts and play may be grouped as diversional; instruction in commercial, professional, technical subjects, and the languages, as practical training. Roughly speaking, therefore, over one-half of the six thousand patients were engaged in occupations of a diversional character, and over one-third in occupations of an economic value.

It is an unprecedented fact that over a third of the patients convalescing from tuberculosis may be engaged in work of a definite and practical nature.

End Result of Treatment Emphasized

This phenomena has been brought about by the emphasis placed upon the end result of treatment. The great lesson of the rehabilitation of the war victims has been that more than expert diagnosis is needed, more than brilliant surgery, and more than careful after-treatment, if the patient is to be restored to that mental and physical vigor which will enable him to earn his living. Indeed, diagnosis, surgery, and treatment can only restore bodily functions. They are vital contributions to the long process of healing. They may physically cure the patient, but they cannot make him a wage producer, or an economic asset to his community. If the cure is not to be directed to this end, and if the patient is to remain idle and dependent ever after, one may challenge the purpose of an elaborate and expensive cure.

The value of the end result was first most vigorously emphasized in orthopedic lines during the recent war. Clever bone grafts and surgery do not of themselves insure the functioning of muscles and joints, and functional restoration became the goal of orthopedic rehabilitation.

The end result is no less important in tuberculosis. No greater criticism could be made of treatment in the past than that which has been said of tuberculosis victims, "Cured, but unfitted for work."

The end result of the cure for tuberculosis is more than the permanent arresting of the disease. It is the strengthening of muscles for use. It is the mental and moral fiber which will enable its victim, upon recovery, to take and hold his place among wage earners. Any treatment which falls short of this end fails to attain the purpose and the ideal of the cure.

The position of the victim of tuberculosis after he is discharged as cured and attempts to compete with normal men and women is a particularly difficult one. All kinds of work are not suitable for him. Limited as is his choice of employment, it is all the more imperative that he make good when the proper position is found. His living conditions, with proper food, fresh air, and rest, are essential in maintaining health for success in work. These are largely dependent upon an adequate wage. The tragedy of many victims of tuberculosis lies here. The choice of an occupation is indeed a narrow one for those men who depended upon physical labor for employment before the disease. There is a limit to productive "light" work which may be found for these men. The only chance with which numbers of them may face the future is to increase their working capital so that they may offer skill or education as a substitute for muscular strength. Skill and education not only increase the openings in industry possible for the tuberculous, but they also command a wage which may secure the proper standard of living for the maintenance of health.

Training for Future Work Imperative

Training is the only logical and effective method of providing the necessary education and skill. It is this fact which makes the record of the military sanatoriums, with over one-third of the convalescing patients in training, of tremendous significance. One can imagine what it would mean to the patients themselves, and to the country at large, if one-third—or even one-tenth—of the civilian patients convalescing from tuberculosis were in training and preparing themselves for future economic activity.

It may be urged that the average sanatorium is not equipped to provide training. Furthermore, it would not be possible for the small institution to procure the expensive equipment and staff which a variety of technical subjects would necessitate. The sanatorium is primarily a hospital, not a school. This is true, but it does not preclude the fact that the long hours of convalescence in any institution may be advantageously, instead of wastefully, spent. Concentration and application of mind is preparation for future usefulness. Manual work preserves, if not develops, skill and dexterity. Mechanical drawing, necessary for many trades, requires little equipment. Grammar school training is invaluable for those who have not had its opportunity. Business arithmetic, bookkeeping, and practice in estimating, involve only the

*Physical Reconstruction Applied in the Treatment of Pulmonary Tuberculosis, by Dr. Frank Billings, Journal American Medical Association, October 4, 1919.

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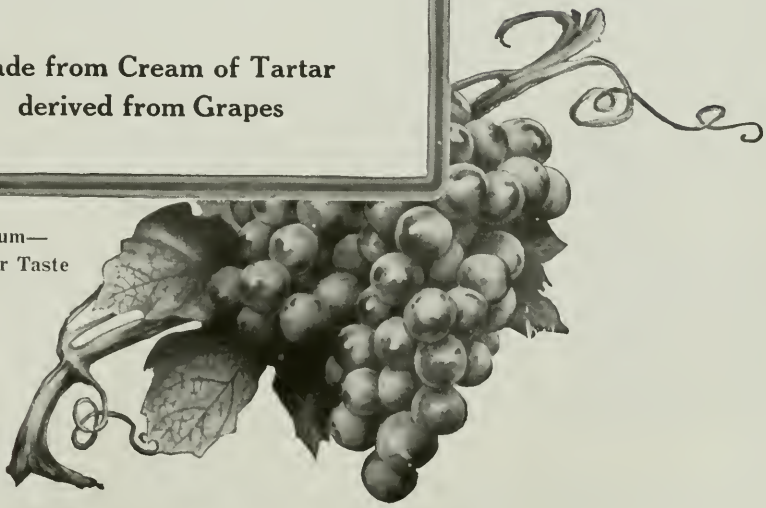

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elementary steps of mathematics. The patient's time may thus be occupied to advantage. There has been a purpose in the work, and the mind of the patient has been turned from dwelling upon his morbid condition to thinking of the future with optimism and courage. It has enabled the authorities of the institution, who have been already conversant with his physical condition, to know something of his taste, temperament, ability, and limitations, so that they may advise him in the choice of an occupation.

Dr. H. A. Pattison, secretary of the Advisory Committee of the National Tuberculosis Association, has classified the following factors in determining the vocational futures of arrested cases of tuberculosis:

Group I. Factors due to the personality of the worker.
(a) Present health.
(b) Temperament and education.
(c) Choice of vocation and trade.
(d) Age.

Group II. Factors due to conditions of work.
(a) Character of work.
(b) Attitude and position.
(c) Time, duration, and pauses.
(d) Fatigue, tension, and responsibility.
(e) Wages.

Group III. Factors due to materials and processes.
(a) Dusts.
(b) Poisons.
(c) Gas and fumes.
(d) Infectious material.
(e) Dangerous machinery and appliances.

Group IV. Factors due to the place of work.
(a) Outdoor and indoor.
(b) Construction of work places.
(c) Air and ventilation; temperature and humidity.
(d) Light and illumination.
(e) Sanitary care and comforts.

Although the sanatorium may give no advanced technical training, nevertheless it may provide training of a practical nature. In all events, it holds the key to the economic future of its inmates. The vital step in all rehabilitation comes in the early stage when ambition is aroused and morale strengthened. This rehabilitation work every sanatorium can and must do. It begins with the occupational therapy of the simple ward occupations.

While one-third of the military patients were in training, it must be remembered that over one-half were engaged in diversional occupations. These early diversional occupations not only provide definite occupation and regulated activity, but they also are the means of inspiring the patients to take training and engage upon productive work, after discharge. They are essential to all patients in preventing hospitalization, and in bringing about the end result of "cured and fitted for work."

The Department of Health of New York City is planning the establishment of health centers in all boroughs of the city. Each of the centers will be a miniature health department where the various functions of the Department will be coordinated. Of the five borough offices already equipped with a clinic, vaccinations are performed, food handlers are examined, and mothers can go there for advice. An expert from the bureaus of preventable diseases, child hygiene, food and drugs, vital statistics, and the sanitary bureau has been assigned to the various borough offices.

Nature repairs her ravages—repairs them with her sunshine and with human labor—George Eliot.

RED CROSS EQUIPS TUBERCULOSIS HOSPITAL IN FLANDERS

A modern sanatorium for the treatment of tuberculosis will be the permanent memorial which the American Red Cross will erect in Flanders. Through all the years, it will speak in terms of restored life and health to the descendants of the men and women who lived, suffered, and died in the war.

The magnificent estate of Baron de Haere, at Aertrycke, has been purchased for 400,000 francs. Money for this purchase was obtained from the sale of food, clothing, and household wares, donated by the American Red Cross, and sold at cost to the people of Flanders. In this way, these people not only have refurnished their demolished homes, but have helped to provide a hospital for the members of their families who have fallen prey to this disease. The purchase price represents only a fraction of the original cost of the chateau to its owner. However, he fixed this small valuation upon it, in appreciation of the work that the American Red Cross had done for the people of Belgium, and in sympathy for his countrymen who had succumbed to tuberculosis, as the result of exposure and hardships in rebuilding the war-ravaged territory. Baron Van de Gracht, another wealthy landowner, residing just outside the devastated zone, has contributed 200,000 francs to the hospital fund.

The establishment of this hospital for the treatment of tuberculosis is the outgrowth of a request of the Belgian Government, for a permanent memorial which should symbolize, in a suitable manner, the aid which the United States gave to Belgium during the war. Capt. J. C. Eppstein, head of the Red Cross Commission to Belgium, devised the plan of purchasing the tuberculosis hospital with the money obtained from the sale of American Red Cross reconstruction supplies.

Besides the large baronial residence, the estate contains seventy acres of park and pasture land, and when completed will form one of the most thoroughly equipped tuberculosis hospitals in Europe. It stands on one of the highest points of Flanders, away from the damp, foggy lowlands, where sufferers may have the benefits of restorative sea air. The spacious building will provide housing accommodations for several hundred patients. Because of the difficulty of obtaining labor to remodel the residence and install the necessary changes adapting it for hospital use, barracks were erected on the grounds, for the immediate reception of patients. When the new wing is completed, the building will contain forty big wards. Men, women, and children will be received for treatment. Experts of the Rockefeller Commission will be in charge of the hygienic and sanitary arrangements. Most of the equipment will be supplied by the American Red Cross headquarters in Paris.

Because the American Red Cross has always followed the policy of not holding real estate in Europe, the purchase of the grounds for the new tuberculosis hospital was made in the name of the Belgian committee which is carrying on relief work under the direction of Capt. Eppstein. Title will be held by a special organization backed by the government, but the institution will bear the name of the American Red Cross Tuberculosis Hospital.

One of the first instances in which medical questions have been put to popular vote for decision, was at a recent election in California. Four measures were defeated, the antivivisection bill, the antivaccination bill, a bill for the creation of a separate chiropractice board, and one to give the osteopaths the right to prescribe drugs.

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GALLON PACKAGE

THE EASY AND SURE WAY FOR THE NURSE

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It was built by the Westinghouse people to supply a practical and sensible solution to the ever growing problem of employee betterment.

Business concerns do not go into employee enterprises of this kind from philanthropic motives or for advertising purposes. These things are built, as the Westinghouse cafeteria was built, strictly from and for business considerations.

The cafeteria building is 300 feet long, 100 feet deep, and has three stories and a basement. It is of brick and concrete construction and is decidedly attractive from an architectural standpoint. It is outside the plant, thus being accessible to the general public as well as to employees, although outside business is not sought.

The Westinghouse Lunch Club houses the largest industrial eating house in the world. All modern features are incorporated in the building, including the use of ramps instead of stairways.

The entire first and second floors of the building are devoted to cafeteria purposes. On the first floor is one cafeteria for women and another for men, and on the second floor is a cafeteria for both men and women. On the third floor is the East Pittsburgh Club, the officers' dining room; the kitchen; and an auditorium and lecture room. In the basement is the refrigerating machinery and the laundry, two important adjuncts of this institution.

Necessarily, in a cafeteria as large as this, everything has to be finely geared and worked with machine-like precision, or endless confusion is certain to result. Equipment, of course, has the most to do with producing this condition of efficiency, but it depends not a little upon the building itself. This Westinghouse cafeteria was planned and built so as to bring out the closest harmony between the building and equipment. So well has this been done that three thousand people can enter this building, eat their lunch and be out again in twenty-two minutes. This great number can be handled without any confusion, haste, or congestion. One crowd can get out and another get in without any complications whatever.

The employees enter the building at the center and proceed up an incline or ramp to the second floor, and they leave at either end down other ramps. Thus there is a continuous circulation of employees in and out through different entrances all through the lunch and supper hour.

Necessarily, in a cafeteria of the magnitude of this one, delay or confusion of any kind cannot be tolerated. Employees cannot be permitted to idle along before the service counters while picking out the food they want. To prevent any idling or delay of this kind and to make the whole proposition proceed with snap and vim, there is before each service counter a continuous belt. As the employee enters the line he picks out his tray and silverware as he does in an ordinary cafeteria, but instead of carrying it or pushing it along on a rail he puts it on this moving belt. Thus the tray moves along, the employee following it. First he gets his bread and butter, which is already laid on a plate. Next he comes to the meat and vegetable section. Usually there are two meats, or one fish and one meat with vegetables. These are laid out on plates in advance, so as to obviate the necessity of serving. The employee takes the plate he desires, puts it on the tray, which is moving along all the time. Next he comes to the dessert and beverage sections, he can quickly make his selection out of the two or three desserts at his disposal, and take a cup of coffee or a glass of milk. By this time the end of the belt is reached and the tray slips smoothly off onto the end of the service counter. This arrangement permits the passing of thirty-four persons a minute by each service counter.

The employees at first were just a bit afraid of the moving belt. They seemed to think trays would get away from them. One of the cafeteria attendants stood at the end of the belt so as to shut off the motor in case there should be a jam. Despite the novelty of the thing, there

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WE PAY POSTAGE

SURGEONS' OPERATING GOWNS

SPECIAL

$16.98 DOZEN

ORDER ON APPROVAL

We will send you on approval without any obligation whatever, these large, roomy, extra well made surgeons' operating gowns cut from extra quality heavy, shrunk, muslin. Examine them. See for yourself what genuine bargains they are. Then if you are not entirely convinced that the material is unusually good—that the workmanship is the best—if you don't think they are the best value for the money you ever heard of—just send them back. You risk nothing.

GENUINE BARGAINS

Certain big mills forced to liquidate their overstocks consigned them at actual weavers' cost. To keep our factory busy this month we are giving you the low prices just as they were given to us, and we are furnishing our own part of the contract at bed rock prices, too.

No. 407 Surgeon's operating gowns are large and roomy, particularly designed to allow perfect freedom of movement. They have long sleeves (short sleeves if desired). Open in back with tape ties to fasten. Double felled, extra well stitched and reinforced throughout to insure maximum wear. Sizes 36 to 46 chest. These gowns are usually offered as Indian Head. Only experts can tell the difference.

SEND THE COUPON NOW

Just put the name and address of your hospital on the coupon and mail it TODAY. State plainly the size and price gowns you want. List them by numbers. We will ship you the gowns immediately on approval. At this value and price, it will pay you to anticipate your needs for several months to come. We don't expect to have half enough gowns to supply the demand, so mail the coupon NOW.

No. 408. Genuine, extra quality Indian Head Surgeons' Gowns. Dozen..... **$21.98**

These gowns are backed by an unlimited guarantee. They are the best that money can buy.

No. 409. Extra Quality Surgeons' Gowns. Dozen..... **$26.45**

Made of heavy Twill particularly selected for long service and resistance to chemical action and blood stains.

No. 512. High-grade Twill Patients' Gowns. Dozen..... **$16.48**

Combining the light weight of fine muslin and the strength and durability of twill these gowns are ideal for comfort and long service.

CHICAGO HOSPITAL SUPPLY CO.

Not Inc.

Dept. M.H. 1321 312 South Clark St., Chicago

Chicago Hospital Supply Co.,
Dept. M.H. 1321, 312 So. Clark St., Chicago.

Please send us the following items. We will examine them. If materials and workmanship are not entirely satisfactory, we will return them in 5 days.

No.	Dozen	Description	Size	Price
408	.....	Indian Head Surgeons' Gowns.....	.....	$21.98
407	.....	Heavy Shrunk Muslin.....	.....	16.98
409	.....	Jean Twill Surgeons' Gowns.....	.....	26.45
512	.....	Twill Patients' Gowns.....	.....	16.48
621	.....	Indian Head Nurses' Gowns.....	.....	23.95

Name of Hospital.....

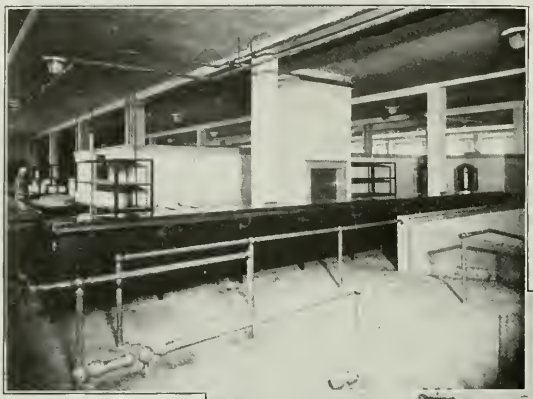
Address .....

Superintendent .....

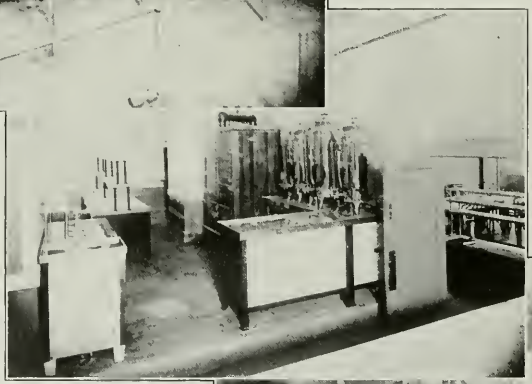
Consult the 1920 Year Book for Catalog information.

were few jams, even the first day. The employees quickly found that if the tray moved along a trifle too fast they could hold it in place on the belt while they were getting what they wanted. But even if they held the trays in place, the belt moving along under the trays conveyed the necessity of haste. The thing worked like a charm.

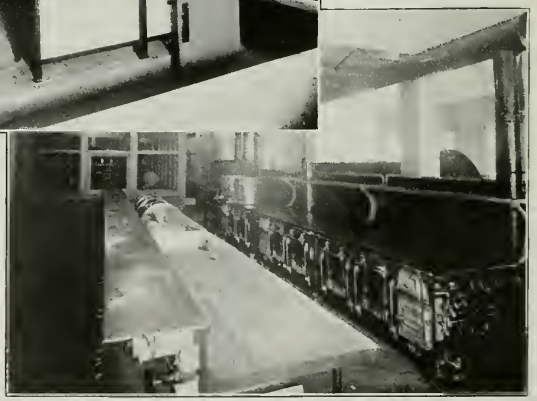
The plate meal of the kind just mentioned costs the employee twenty-five cents. If he wants dessert he pays ten cents more. After passing the checker he sits down at a table, leaving all his dishes on the tray. After eating he must pick up the tray and carry it along to another moving belt by which the tray is taken along to an automatic elevator which takes it to the dishwashing room. The automatic elevators for the conveying of food and trays of dishes are in constant operation during the meal. The two dishwashing rooms are in the center of the second floor, where the trays are carried by belts. From the first floor the trays of soiled dishes have to come up on the elevators or subveyors, as they are called. These subveyors are just the right size to accommodate the trays, which are slipped in on grooves without stopping the subveyor. They are taken up to the second floor and pulled off by an attendant.



There are eight service counters in the cafeterias on the first and second floors. There are coffee urns, milk freezers, a refrigerating plant, motor driven washing machines and storage rooms artificially cooled.



The steam tables from which the patrons of the Westinghouse Lunch Club are served. Note the arrangement of ramp and aisles.



There are gas and combination coal and gas ranges, and electrically heated pie baker with a capacity of sixty-five pies every fifteen minutes.

The various service counters in the cafeteria are built of polished, black steel, with nickel-silver tops. Just under the top there is a heated space for keeping plates and food hot. At one end is a cooled section for chipped butter. Back of the service counters are steam tables and additional plate warmers, the steam tables are supplied with pans, each having a capacity of one bushel, providing an ample supply of the various kinds of foods served. There also are stands with reserve supplies of pastry, pies, bread, and so on, ready to put on the service counters as it may be required.

The two cafeteria floors are supplied with tables having white enameled, baked-on, sheet metal tops, with raised edges. In the second floor cafeteria and in the men's section on the first floor there are revolving stools secured to the floor. In the women's part of the first floor cafeteria, chairs are used. The stools are desirable in that they prevent undue crowding and tend to eliminate confusion.

The East Pittsburgh Club on the third floor is in reality the officers' dining room. It is equipped with tables having glass tops. Chairs are used. This room has a seating capacity of five hundred. Waiter service is furnished. The same scale of popular prices prevails here as on the regular cafeteria floors, the only difference is in the waiter service and in a somewhat more extended variety of selection.

The kitchen, as might be expected in a cafeteria of this magnitude, is the last word in efficiency, convenience, and ease of operation. Every possible labor saving device has been installed there. It has three sections of combination coal and gas ranges, if it is desired to change to coal, all that is necessary is to shut off the gas at the supply pipe and start the fire. One desirable feature of this range is that when gas is used not all the burners have to be utilized all the time. As soon as the top and ovens are thoroughly heated, half the burners can be turned off, thus greatly reducing the amount of gas consumed. There is also a double gas broiler and two huge steam heated, iron jacketed stock kettles.

The Westinghouse company, in deciding upon the considerable investment necessary for building and equipping this wonderful cafeteria, was actuated entirely by business considerations.

It has been scientifically demonstrated that proper attention to lunch, including both quality and environment, has much to do with increasing the efficiency of a working force.

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The fabric that stays white and lustrous

Duretta Cloth

(Lustre Finish)

The woven, bleached, and lustre-finished white cotton twill that is unequalled for hospital uniforms.

Duretta Cloth is especially pleasing to the nurse, as it retains its clean, smart appearance, does not look stiff and starchy, and never becomes gray or yellow through laundering. Duretta grows more beautiful in whiteness with constant washing. There is also a softness about Duretta that lends itself to graceful folds, and it has a unique lustre finish that makes it far superior to any other twill fabric.

It is true economy to use uniforms made from Duretta Cloth, since it is made from selected cotton, carefully woven into a cloth of extreme strength and unusual lasting qualities.

You will like the economy of Duretta. Your nurses will like its beautiful finish. The patients in your hospital will appreciate the spotlessness of those attending them.

Ask your local department store or your regular hospital supply dealer to send you a trial order or samples and prices, but if not found write us and we will send you sample and see that you are supplied.

PACIFIC MILLS

LAWRENCE, MASS.

Mention The Modern Hospital.

MEETINGS, CONVENTIONS AND CONFERENCES

CANNERS DISCUSS GUARANTEES FOR PUBLIC

THE fourteenth annual convention of the National Canners' Association, held in Atlantic City, January 17 to 21, was distinctly one in which the consumer and his interests held a high place. While the addresses in many instances bore on the business situation as it affects the canning industry, and while various papers dealt exclusively with canning technic, the consumer was kept constantly in view. For far too long have canned foods been under suspicion in the minds of many housewives, and at last the industry has realized the necessity of telling the full truth about canned foods to the consumer. Accordingly, the convention that has just passed carried many messages of import to the purchasers and users of food, the merits of canned foods were extolled by competent authorities, their safety and wholesomeness demonstrated, and the means pointed out whereby the consumer can be assured that he is purchasing only clean and wholesome canned food of the quality he desires.

The mere names of certain speakers are sufficient to inspire confidence in an industry that selects them as its spokesmen. Certainly the consumer can feel safe in using foods advocated by Harvey W. Wiley, Milton J. Roseman, E. O. Jordan, and Alfred McCann.

A report was made concerning the inspection and advertising campaign now fully under way. It was shown that during the past season the inspection service operated in nineteen districts, covering twenty-nine million cases packed in 825 canneries, and 281 inspectors were required for the daily sanitary inspection. The service is now sufficiently well established to make it possible to carry the message of the inspection seal direct to the consumer. The seal's significance is now being made known to the consumer by a widespread advertising campaign, and gradually it is being borne into his consciousness that this seal symbolizes a clean food packed by clean operatives in a clean cannery. Millions of cans of food bearing this seal may now be found on the shelves of the retailers, and this tangible mark of approval given by the Association only after compliance with exceedingly stringent sanitary regulations should be welcomed by the consumer as an assurance of the cleanliness, purity, and wholesomeness of the foods that bear it.

The day of the dark, poorly ventilated, unsanitary cannery is past. The self-inspection assumed by the National Canners' Associations is a harbinger of a new era. The men of vision, leaders in the industry, have recognized the necessity of gaining the confidence of the consuming public, and every effort is being made to place the industry on a still higher plane and to correct every practice, no matter how insignificant, that might in any way affect the quality or wholesomeness of the foods they purvey.

For many years ptomain poisoning has been a handy phrase to pander to journalistic sensationalism or to conceal medical ignorance. Under the auspices of the Association, Dr. Roseman of the Harvard Medical School has conducted a careful scientific investigation of this important subject, and at this convention he assured the canners that there was no such thing as ptomain poisoning, that it was certainly a misnomer as applied to canned foods, and that the cases in which body disturbances of this nature could in any way be connected with canned foods were rare indeed. The mere fact that a food was canned in no way increased the incidence of this form of poisoning, but from the very nature of the case, tends to forward its prevention.

At the present time ptomain poisoning, no longer possessing its sensational value, has in great measure been supplanted by botulism, the most up to date form of food poisoning, and this is being worked to death by both the lay and scientific press. The few authentic cases of botulism have been over-emphasized and exaggerated, with resulting harm to the industry. That these isolated cases exist cannot be denied, but they are by no means peculiar to commercially canned foods, where, as a rule, greater precautions are taken than in the home canned variety. However, recognizing its duty to the consumer, in spite of the extreme rarity of authentic cases of botulism arising from the use of canned foods, the Association has undertaken a thorough investigation of this problem, and under the direction of Dr. E. J. Dickson of San Francisco, studies are being made of the distribution and occurrence of the botulinus organism in nature, as well as means of destroying it when present in our food crops. Experiments already made have clearly demonstrated that processing at a sufficiently high temperature is a sure preventive of botulism, and a more scientific procedure in canning processes will remove any chance of the recurrence of this very rare form of food poisoning.

TOLEDO ORGANIZES HOSPITAL COUNCIL

Toledo has taken a forward step in hospital betterment work by the organization, on January 24, 1921, of a Hospital Council. The object of the Council, given best in its own words, is, "To promote unity of action on the part of the hospital of Toledo; to coordinate the activities of such social agencies, civic bodies, and public departments as deal with hospital problems; and to take such action as is deemed wise for the general betterment of the community at large, with particular reference to med-

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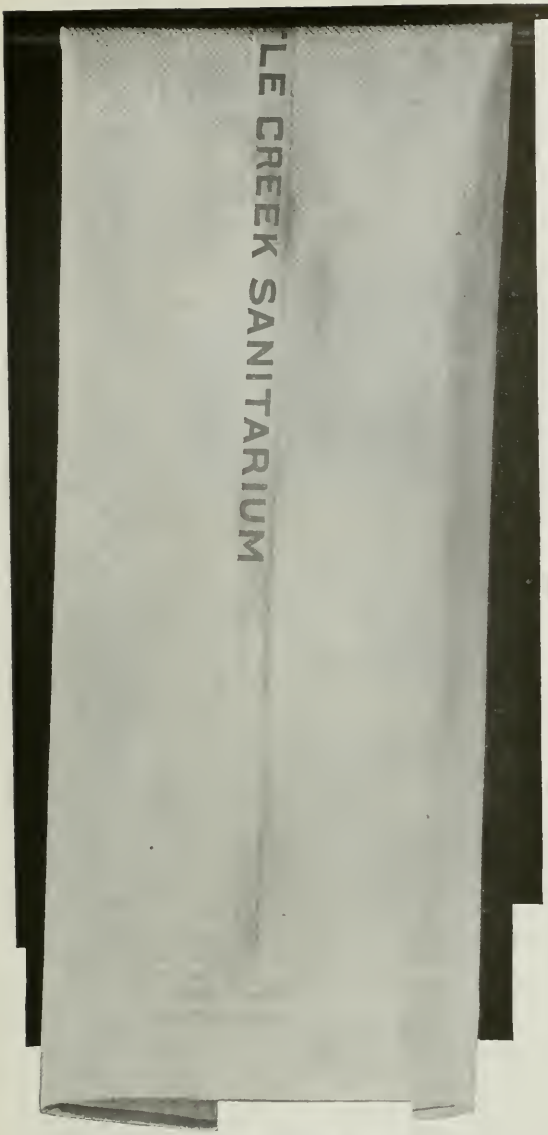

Towels That Outlast All Others

Hospital towels must undergo many launderings, and should therefore be made of the best materials. Cannon Towels have an established reputation for hospital use. Many of the leading hospitals of the country are using them.

They are made of long-staple cotton. Every step in their manufacture is performed in mills owned and operated by the Cannon Manufacturing Company—the largest producer of towels in the world.

The Cannon process of bleaching and finishing gives the towels an appearance always desired by the carefully appointed hospital. This finish is not marred by frequent laundering. Cannon towels wear well. They are exceptionally absorbent.

The name of the hospital can be woven crosswise on borders or lengthwise through centers—in white, red or blue. Orders accepted for lots as small as 50 dozen bath or 100 dozen huck towels.

Look for the Cannon trade-mark on all name towels. They are distributed only through jobbers, but samples, prices and complete information can be obtained from

CANNON MILLS, Inc.
55 Worth Street New York City

CANNON TOWELS
WOVEN WITH YOUR NAME

ical and hospital service in Toledo." The membership will be made up of delegates from the hospitals which subscribe to the constitution, and such individuals as are elected by the delegate body. The organization will hold regular meetings every month, with annual meetings in January of each year.

The Council intends to tackle the problems before it in the following ways: It will try to bring about an improvement in the methods, policies, and ideals of the work of individual hospitals, and to develop cooperation between different hospitals, which will make for greater economy and efficiency. It will endeavor to demonstrate to the public the need for the establishment of new hospitals, or the extension of those already established. It will investigate and report on propositions for new hospitals, making it clear to the community if they are unnecessary or unwise. It will try to develop joint action for the advancement of reforms in hospital administration and legislation, and will outline a program of future hospital development. The education of the community will be undertaken further, by the holding of conferences, and distributing of material on subject relative to hospitals, and by making surveys of the various parts of the fields of hospital service. The Council will cooperate with the Toledo Community Chest, and the Toledo Council of Social Agencies according to plans which will be worked out later.

There was an active and constructive interest shown at the January meeting. The first big problem which the delegates decided to take up was a survey of the hospital situation in the city, and a committee was appointed to make the plans and decide on the scope of the survey.

The officers elected at the first meeting were: President, C. D. Selby, M.D.; vice-president, P. H. Behrens; secretary, Norris Gillette, M.D.; treasurer, C. A. Collin; director, Rev. Father Karl J. Altar.

NATIONAL HEALTH COUNCIL CREATED

A conference of a number of the leading national voluntary health agencies was held in Washington on December 10, 1920, at which meeting a National Health Council was created. A form of organization was approved, and a constitution and by-laws adopted. The membership of the Council is at present composed of nine organizations, the officers recently elected being as follows: chairman, Dr. Livingston Farrand; vice-chairman, Dr. Lee K. Frankel; recording secretary, Dr. C. St. Clair Drake. The election of a treasurer was deferred until further consideration could be given to the whole question of financing the project.

The Council was the outgrowth of many efforts in past years, initiated by the American Public Health Association, the American Medical Association, and other agencies, to coordinate national voluntary health organizations. These measures culminated in a special health coordination study carried out during the summer of 1920, under the direction of Dr. Charles J. Hatfield, Dr. Watson Rankin, and Dr. Livingston Farrand, with the financial aid of the American Red Cross. This investigation was conducted by Dr. D. B. Armstrong.

At a preliminary conference in Washington, at the call of Dr. Farrand, on October 18, 1920, the need for such a coordinating body was fully discussed, and a temporary organization perfected, Dr. Farrand acting as temporary chairman, and Dr. Armstrong as temporary secretary.

The organization conference on December 10, referred to above, approved of the following list of activities, as indicating the legitimate field in which the Council might function:

1. A special information bureau.
2. A legislative bureau.
3. The coordination of health activities.
4. Periodic joint conferences.
5. A statistical bureau.
6. The development of educational health material.

It is anticipated that financial resources, from the Red Cross and from other participants, will be sufficient to enable the Council to establish an office and staff, and to undertake first those activities promising the greatest benefit to member organizations.

In accordance with the by-laws adopted by the Council, each member organization has appointed one representative and one alternate. The original members, with corresponding representatives and alternates, are as follows:

Members	Representative	Alternate
American Public Health Association.	Dr. Lee K. Frankel....	Dr. M. P. Ravenel
American Red Cross	Dr. Livingston Farrand.	Dr. E. A. Peterson
American Social Hygiene Association..	Dr. William F. Snow..	Mr. Bascom Johnson
Council of State and Provincial Health Authorities	Dr. C. St. Clair Drake..	Dr. E. R. Kelley
Council on Health and Public Instruction of the American Medical Association	Dr. Watson Rankin.....	Dr. Frederick R. Green
National Child Health Council	Dr. Philip Van Ingen...	Mr. Courtenay Dinwiddie
National Committee for Mental Hygiene	Dr. Thos. W. Salmon...	Dr. Geo. H. Kirby
National Tuberculosis Association		
National Organization for Public Health Nursing...	Miss Edna L. Foley....	Miss Mary S. Gardner
	Dr. Chas. J. Hatfield...	Dr. J. Alexander Miller

The by-laws provided that "other national health organizations may hereafter be elected to membership by a two-thirds vote of the members." Provision is also made for advisory or conferring, as well as directly participating members. The International Health Board probably will, together with official agencies such as the United States Public Health Service, be associated with the Council in this capacity.

Many important matters before the Council, given partial consideration at the last conference, such as office, staff, budget, resources, etc., were referred to a sub-committee made up as follows: Dr. William F. Snow, chairman; Dr. C. St. Clair Drake, Dr. Charles J. Hatfield, Dr. Lee K. Frankel, with the Council chairman, Dr. Livingston Farrand. It is expected that this committee will report its deliberations to the Council at a meeting in the near future, following which the organization should be in a position to proceed with the development of its program.

The Public Health Council, representing as it does many prominent national health agencies, should serve as a valuable clearing-house and coordinating center, in many fields where common functions are performed. It aims to be an integrating force among independent, autonomous agencies, rather than a merger of such agencies into one organization. It should increase the economy and effectiveness of operation, should eliminate duplication of effort, and should enhance opportunities for sympathetic and constructive public service. Such a movement, through its membership, and through a mutually helpful relationship with state and local voluntary health agencies, should effectively serve the declared object of the National Health Council, which is, "the betterment of health work in the United States."

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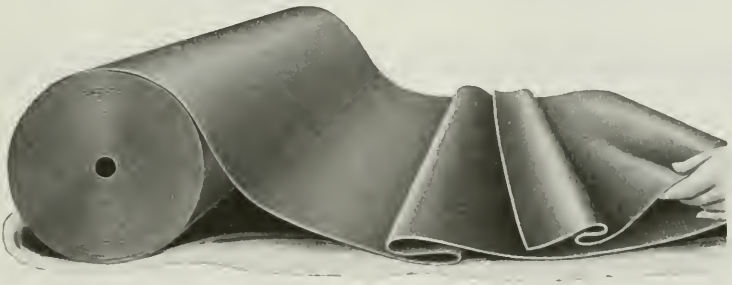
Medic Medic Medic Medic Medic Medic Medic Medic



MEDIC HOSPITAL SHEETING represents the utmost in hospital sheeting value.

Its manufacture combines the use of best ingredients and modern rubber technique.

Years of hospital service has proven its worth for heavy duty.

Samples and prices gladly sent on request.

Archer Strauss Rubber Co.

Framingham, Mass.

FOREIGN CORRESPONDENCE

RAISING MONEY FOR BRITISH HOSPITALS

Public interest in England is becoming more and more concerned at the present condition of the hospitals. This state of mind is not to be wondered at, for if the hospitals cannot perform their service to the public, it is the public that suffers. In any event, it is a healthy sign that the indifference and lethargy which have been manifested with regard to the hospitals is disappearing, for unless the question is discussed, analyzed and understood, by the community at large, little progress in the direction of reform can be expected.

Lord Knutsford, chairman of the London Hospital, the largest British hospital, situated in the heart of the teeming east end, is mainly responsible for arousing interest in this question. He definitely stated the other day that if sufficient money were not forthcoming soon, this large and famous institution must close its doors. This would be a calamity, and even the suggestion of it has focused attention on the hospital situation.

In the first instance, the matter is chiefly financial. It was proposed in the recent discussion in the House of Commons, and amplified by the joint Parliamentary Advisory Council, that the Ministry of Health should set up a committee of inquiry, to ascertain the defects of the present financial system of the London hospitals in particular; and, further, to suggest some scheme of coordination. However, among prominent authorities in the hospital world there seem to exist views diametrically opposed, judging from the statement made in the public press. The time is therefore ripe to make public the facts upon which these statements are based.

Before attempting the task, it may be said that business principles have been introduced into the provincial hospitals, with a fair measure of success; and that it is London which has lagged behind in this respect. As is pointed out by Sir Napier Burnett, director of hospital services, the London institutions have depended almost entirely upon spasmodic appeals for funds. This method is a failure. There is not a sufficiently widespread recognition of the value in crude cash of the service a hospital renders to its patients. It should be borne in mind that a man's family, his employer, in many cases an insurance company, in all cases the state and municipality, are the richer in cash for the hospital's work. A definite appeal should consequently be made to all these various beneficiaries. How many employers realize the amount of valuable economic work which the hospitals perform for them? Again, think of the benefits conferred directly and indirectly upon general insurance companies and accident offices. As Burnett points out, the low tariff rates now quoted for life and accident policies are, in fact, the result of actuarial calculations, largely based on what the hospitals and the medical profession generally do for the preservation of life and limb. In return, what support comes from these same insurance companies?

During last year an inquiry was conducted into the financial position of some nineteen voluntary hospitals in the north of England. They had a total ordinary income in 1918 of approximately £250,000 ($1,250,000), of which sum the insurance companies subscribed less than £300 ($1,500). Fortunately, many municipalities are beginning to take a more intelligent view of their duties towards the hospitals. They are now giving money, not as charitable donations, but confessedly in acknowledgment of actual work done. In summing up the money side of the question we must depart almost wholly from the old notion of charity, which was the true basis of the original voluntary idea. The public, of course, will be always ready and willing to subscribe to an institution that treats the really indigent sick and maimed; but today, and this is an important fact, the public hesitate to subscribe for the treatment of patients who can clearly afford to pay. It is not the working classes at the present time who are deserving of free treatment; as a rule, they can well afford to pay. It is the poor middle classes, with fixed incomes, who must need assistance in this respect. All who require and ask for hospital treatment, however, should pay according to their means. Burnett considers that the hospitals ought to set up a complete registrar system of the patients treated, their occupation, their employer, and so on. Through such a system, each hospital ought to bring its claims more directly before the parties deriving benefit from the hospital system, and there should be a competent scheme for collecting the necessary funds from such sources.

The sooner the situation is understood by the public, the better it will be for all concerned. It certainly seems that if the voluntary system is to be continued, patients who can afford to pay must contribute according to their means.

That hospitals should come upon the rates, even partially, although proposed in a bill recently laid before Parliament by Dr. Addison, the Minister of Health, has met with such strong opposition, that it is likely to be shelved or modified. Any addition to the already enormous rates will not be tolerated. Neither is it probable that hospitals will be nationalized; the sentiment of the medical profession, and a large proportion of the public, is wholly adverse to this proposal.

Therefore, it seems that it only remains for the rich, and especially the newly rich, to freely open their purses, and to have a pay system, or partial pay system, introduced.

Events happen, but sometimes they tarry and need encouragement from us.—Maurice Maeterlinck.

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CALIFO

An Unusual Introduction

"We judge a man largely by the company he keeps."

Does it not also follow that we judge a product *by the folks who use it?*

Our ledgers show that more than *one hundred* Hospitals and Institutions (ranking first class and nationally known) have used CALIFO BRAND Fruits and Vegetables continuously for *more than ten years.*

We will furnish names and gladly refer you to any of these old friends, if you wish to know more about our large line of high grade fruits and vegetables and our specialized service, or we will deliver to your Institution one can each of twelve CALIFO varieties in big economy cans or in small cans at actual production cost for your personal inspection.

Send for the trial case of our 1920 pack and let's get acquainted.

New price list is now ready for mailing.

THE COAST PRODUCTS CO.

Saint Louis

Page 413

Book Reviews and Current Hospital Literature

BACTERIOLOGY FOR NURSES

By Mary A. Smeeton, B.S. (Columbia University), R.N. Formerly Superintendent of Nurses, Presbyterian Hospital, Allegheny; Assistant Bacteriologist, New York State Health Department; Instructor in Bacteriology, New York University and Bellevue Medical School; Bacteriologist, International Health Board, France.[1]

This textbook will be a valuable aid to the instructor as well as to the student nurse. Bacteriology has usually been one of the unfathomable mysteries to the nurse, due perhaps to the limited course which is necessary in the majority of schools, and the fact that this subject has developed so rapidly that it is difficult for anyone but the scientist to keep pace with it. Miss Smeeton has very wisely devoted her treatment of this science to the phases of it in which a nurse would be most concerned, and at the same time given her an understanding knowledge which enables her to see its relation to other subjects.

The study of pathogenic microörganisms is the major consideration in the book, emphasis is placed on the fact that a great number of microörganisms are beneficial, and comparatively few are harmful. The text is written in a style which gives life to a study which is too often dry and uninteresting reading.

The chapters on bacteria in their relation to other organisms and the part they play in natural processes, furnish a good foundation for the rest of the work and are written in a very readable as well as easily comprehended manner. It was the author's idea that this part of the study be given in the probationary period of the nurses' training, the study to be completed later in her training, after she has had opportunity to observe the effect of bacterial activity on the body and the efforts of the body to combat this action.

MATERIA MEDICA FOR NURSES

By A. S. Blumgarten, M.D., F.A.C.P. Associate Attending Physician to the Lenox Hill Hospital; Attending Physician to the Hospital for Joint Diseases; Lecturer to the Training School of the Lenox Hill Hospital, New York; Fellow of the New York Academy of Medicine, etc.[2]

Dr. Blumgarten's Materia Medica for Nurses is not new, this being the third edition, but it has been revised so extensively as to make it thoroughly up to date. The original book is so well known that a detailed description of it would be out of place. In the revised edition the chapter on organic remedies has been entirely rewritten, though the discussion of these substances is confined to the known facts about them. Dakin's Solution and the Carrel-Dakin method of treating wounds are described in a clear and practical way. New substances brought into use through experience in the World War, and substances which were formerly made in other countries and are now made in the United States under a different name are included in this edition of the book.

THE HEALTHY BABY

By Roger H. Dennett, M.D., Instructor in Diseases of Children in the New York Postgraduate Medical School; Assistant Attending Physician to the Babies' Wards in the New York Postgraduate Hospital; Chief of Clinic in the Postgraduate Dispensary for Children; Fellow of the New York Academy of Medicine.[3]

The author has stated in the preface that his chief reason for writing this book was "to make clear to the mother just how to do best the ordinary everyday things that every mother has to do for her child," and he has succeeded in doing this very well. The text is divided into five groups as follows:

Development and Bodily Functions; Hygiene and Training; Common Ailments; Care of the Special Organs; Feeding and Diet.

The discussion of these subjects is in each case confined to the principles involved in caring for a baby in a sensible way, and in intelligent training for later years. The information given is reliable and readable. It may be easily followed by any mother because it is given in simple, concise language entirely free from technical or scientific terms. Though no definite statement is made of the fact, it is made plain throughout the entire book that it is really less work to bring up a child in the proper way than it is to do it in any other way. Emphasis is also placed on the importance of correct training and development very early in life. No attempt is made to go into the more complicated conditions or any phase of treatment which could not safely be given by the mother, neither is there discussion of formulas—a rare omission and a commendable one. Part VI of the book is devoted to lists and tables which are valuable, including among others a table of poisons and antidotes.

GIFT TO RADIUM INSTITUTE, ENGLAND

Sir Edward and Lady Holt have presented to the Manchester Radium Institute, Manchester, England, a building, almost adjoining the Royal Infirmary and Eye Hospital, as a hospital in which patients can be treated by radium. The building will be fully equipped, and free from all encumbrances. All the hospitals in Manchester will use the Radium Institute, which will be the first one in Great Britain to be used exclusively for radium treatment. Manchester has already spent nearly £30,000 for its stock of radium. Up to the present the institute has been self-supporting, by means of fees from private patients, but public aid will now be needed if the greatest benefit is to be reaped from the new hospital.

1. The MacMillan Company.
2. The MacMillan Company.
3. The MacMillan Company.

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THE MODERN HOSPITAL

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BASIC IDEAS IN HOSPITAL PLANNING

By S. S. GOLDWATER, M.D., Director, Mount Sinai Hospital, New York City

There are three basic principles in hospital planning, which if they could be commonly applied, would vastly improve the character of our hospital buildings. Unity is the first principle. The architect, having in mind the diversified character of hospital work, forgets that the institution must also be a unit working in harmony. Diversity may be carried to an extreme, but on the other hand, a plan may be adopted which is too simple in design, and which does not allow for sufficient specialization of the functions of the hospital. Flexibility, the third principle, which provides for expansion of the hospital, if blended with unity and diversity, will make a perfect institution.

THROUGH the consistent application of a few basic ideas, hospital planning can be vastly improved. The principles involved are simple and easily grasped, yet they are not universally or even commonly applied. In the present article I propose to present briefly a group of ideas which are regarded as fundamental; and to indicate, by reference to hospitals actually built or planned, common deviations in practice which detract materially from efficient hospital service.

The hospital is a place for the treatment of the sick. Medical treatment involves a wide variety of diagnostic, therapeutic, and nursing procedures, and an elaborate domestic economy. A well ordered hospital, doing advanced and thorough work, necessarily contains many clinical and other subdivisions. The specialized character of these subdivisions readily suggests the splitting of the hospital into many parts. Swayed by departmental interests, the architect is apt to be led away from the fundamental idea that the hospital is an organic unit, which cannot function vigorously unless all of its departments function in harmony. A single example will suffice to show what happens when the principle of unity is disregarded.

Illustration 1.—One of the many "finest hospitals in the world," (since professional campaign managers entered the hospital field, the number of "finest hospitals in the world" has increased by leaps and bounds), consists of numerous buildings spread over many acres. The ward buildings are symmetrically placed, making a beautiful architectural picture. The medical and surgical wards, however, are widely separated and between them there is no easy means of communication. Multi-storied ward buildings are attached to two widely separated, one-story corridors. The pathological laboratory is relatively inaccessible. An out-patient department is entirely lacking. The x-ray department is not so placed as to invite frequent visits from the members of the attending staff. The quarters of the resident staff are so distant from certain wards as to discourage prompt response to night calls. The scheme provides for an indefinite increase in the number of ward buildings, but makes no provision for a corresponding enlargement of the nurses' home, or the servants' dormitories. Obviously, in the planning of this hospital, the idea of unity did not prevail, and the plan is one which does not adequately promote departmental coordination, facilitate thorough work, or smooth the way to well-rounded future development.

A glance at hospital activities at once discloses many diverse functions. There are patients to be

cared for in bed and out of bed, indoors or out of doors, singly or in groups, in delirium or in convalescence. There is food to be prepared and distributed; there are linens to be washed, dressings to be sterilized, accounts to be kept, valuables to be stored, visitors to be received, nurses to be taught, housed, fed, and provided with opportunities for recreation; there are operations to be performed, x-ray examinations to be made, refuse to be destroyed, coal to be stored and burned, animals to be housed, culture media to be prepared, chemical analyses to be performed, crowds of visitors to be received, post-mortem examinations to be made, funeral rites to be conducted; and the hospital building must lend itself to the convenient performance of all of these tasks.

Out of much study, during a long period of trial and error, there have come certain principles of orientation, of size, of arrangement, valid, respectively, for particular departments of a hospital; and these principles must be respected.

If the architect considers separately each distinctive function and plans for it appropriately a variety of structural outlines will emerge. If he then proceeds to build for each function, regardless of its place and relations in the general scheme, chaos will result. While the value of diverse forms must be recognized, the necessity of combining these forms into a practicable unit must not be overlooked. On the other hand, if a plan is adopted which is too simple and which is selected on account of its correspondence to some particular hospital function, the resulting building may be satisfactory in part, but will not give satisfaction as a whole.

Illustration 2.—For a hospital site of twenty acres in the outskirts of an important manufacturing city a hospital of 300 beds was planned. The architect, strongly impressed with the diversity of hospital functions, prepared plans for a dozen buildings, each designed for a special purpose. He proposed to spread these buildings over the site in such a way as to utilize to the full the landscape values of the plot. Each of the proposed buildings, separately considered, was above criticism. The scheme, however, rich in diverse and specialized planning, was utterly lacking in unity, and would have resulted in many avoidable administrative complications. Fortunately, at the last moment the plan was abandoned.

Illustration 3.—In a mid-western city a beautiful hospital of 150 beds occupies the highest part of an extensive park. The building has five stories and a deep basement. Within the framework of a modified "H" all departments are accommodated. In determining the width of the building, an attempt was made to fix upon a width that would be suitable for all purposes. The result was a compromise. The wards are too wide; the private rooms are too narrow; the kitchen is cramped; the operating rooms are too small. The four operating rooms have a northern exposure; so also, unfortunately, have the private rooms under them. The obstetric department, located in the center of the building, is not a source of comfort to its neighbors. The children's ward has been deprived of essential features, in the attempt to adjust it to the given framework. The whole scheme is ill advised and the result is distinctly unsatisfactory. Unity alone was sought in the planning, not unity with diversity. The scheme is essentially a product of architectural design, and only secondarily a product of the study of hospital function.

Illustration 4.—An elongated wing of a 500 bed hospital is arranged thus: basement, out-patient department; first, second, and third floors, private patients; fourth and fifth floors, wards. The long axis of the building is north and south; the private rooms face east and west; the chief exposures of the two principal wards, at the extremities of the wing, are north and south. The private rooms are somewhat larger than is necessary; the wards are smaller than is desirable for the number of beds accommodated; the out-patient department, jammed in the basement, occupies space which is entirely unsuitable for its purpose, for while an eight foot corridor may properly divide two rows of private rooms, it makes a wretched central waiting room for a dispensary.

Flexibility Is a Third Basic Principle

A hospital building, in which the qualities of unity and diversity have been happily blended, may be a perfect instrument at the time of its completion, but unless a certain measure of flexibility is added, it will not continue to satisfy. Remember that the hospital is an organic thing; that in order to maintain itself in health, an organism must be capable of adapting itself to its environment, to change when the environment changes. Experience has shown that the conditions which constitute the environment of the hospital are constantly undergoing modification; social changes, community growth, scientific discovery, create new demands which the hospital is called upon to satisfy. Healthy hospitals are growing hospitals, but their growth is not necessarily symmetrical. New discoveries are constantly opening up new lines of medical treatment which call for new space-consuming therapeutic apparatus. Nursing standards are forever ad-

vancing. Novel forms of record keeping are devised, and presently are regarded as indispensable. A hospital which begins as a medical boarding house is eventually called upon to participate in health education, in the clinical training of medical students, in postgraduate medical teaching, in scientific research. A sudden windfall enables the hospital to add a new or larger maternity department, an orthopedic department, a tonsils clinic, a children's health center. Pressure is constant, from within and without, and the hospital must be in a position to accommodate itself to every reasonable demand. An inflexible plan is foredoomed to failure. Hence, to the two basic qualities, unity and diversity, must be added a third, flexibility; and among these qualities, a proper balance is essential.

Illustration 5.—For a hospital of over 400 beds a group of ten buildings was planned. The various buildings of the group (ward buildings, dispensary, laboratory, service building, nurses' home, private pavilion, etc.) were individually creditably designed and the grouping was a happy one. For a brief period after their completion the buildings were a source of pride. There stood the magnificent pile, a perfect whole! Evidently the thought of further development did not enter the architect's head. But no hospital can escape its future. In this case the laboratory work grew most rapidly. A generous endowment fund was offered for the extension of the work of the laboratory, and its acceptance necessitated the complete destruction of the original laboratory building and the erection of a new laboratory building in an awkward location on a neighboring plot.

Illustration 6.—Forty or more one and two story buildings, widely spaced, constituted a hospital plant of 1,000 beds. Space remained for the addition of similar buildings at will. No plan could be more flexible. The ward buildings were all of a pattern, regardless of the diversity of the clinical work. There was no connection between the ward buildings above ground. The distances to be traversed out of doors were great. It is recalled that at one time the management felt called upon to publish statistics to prove that surgical patients who had to be carried outdoors from the operating rooms to distant surgical wards did not develop postoperative pneumonia any oftener than did patients in hospitals possessing closed corridors. The management did not undertake to show that its forty unit hospital could be conveniently or economically operated, or that bedside collaboration between clinicians working in different departments was equal to that which prevailed in hospitals of a more concentrated character. This particular hospital went to the uttermost limits of flexibility, or rather of extensibility, but was lacking in diversity of plan, and in unity.

Illustration 7.—A plot was selected for a new hospital, designed to replace an old one. In the old hospital, work had been carried on for thirty years or more without a dispensary. Under these circumstances, the trustees did not hesitate to accept a site which was large enough for a hospital minus a dispensary. A few years later the need of a dispensary became apparent. After an unsuccessful attempt to secure adjoining property, a dispensary was built in another street, entirely separate from the hospital. It then became necessary to duplicate the heating plant, x-ray plant, and much besides. It is easy to imagine the inconvenience under which the two branches of this hospital, physically divorced, carry on their joint work.

Illustration 8.—For a hospital of 300 beds, a nurses' home was built to shelter 100 nurses. For teaching purposes a single class room was provided. A few years later it was found that additional rooms were needed for teaching purposes. The hospital reduced the nurses' working day from twelve hours to eight and was obliged to enlarge its nursing organization accordingly. Additional stories could not be added to the nurses' home, since no provision for such an emergency had been made. Adjoining space was not available for an extension. The hospital was compelled to build a remote "annex," the disadvantages of which are apparent.

A hospital which is not rich in health values is a failure. Health values do not reside exclusively in smooth walls, smooth floors, and rounded inner corners; they are many and varied, including certain values which tend directly to the promotion of health, such as the proper orientation of wards, the sun exposure of balconies, grounds or flat roofs accessible to patients, effective ventilation, quiet bedrooms for night nurses, advantageously placed dormitories and recreation rooms for the resident staff, proper sleeping quarters for other resident employees, a cheerful and tonic outlook; and also features which tend to the prevention of disease, such as receiving wards, quiet rooms, isolation wards, sterilizing equipment of many kinds, sanitary construction, etc.

Illustration 9.—To a group of city hospital buildings, possessing a reasonable measure of unity, diversity, and flexibility, there was added a building containing two forty bed wards which were above criticism in the matter of sanitary finish, but to which not a single quiet room or side ward was attached.

Illustration 10.—As part of a notable city hospital a "U" shaped ward building of seven stories was planned. The long axis of the wing was east and west, and each wing contained a thirty bed ward on each floor. The building was liberally provided with balconies, some of which faced the south, the others the north. The balconies that face the north are sunless in winter and breezeless in summer; those that face the south are used about ten times as often as the others.

Illustration 11.—The plan for a 150 bed hospital for chronic cases, in which a certain benevolent order desires to care for its members, shows sixty-five beds occupying rooms which face the north. The architect concedes the advantages of a sunny room for a chronic invalid. His plan should, therefore, be modified.

Illustration 12.—Two five story ward buildings are erected along the building line of a sixty foot street, the long axis of the ward parallel with the street. There are no balconies whatever. The erection of tall buildings on the opposite side of the street (which the hospital does not control or seek to control) will eventually deprive the wards of all direct sunlight.

Illustration 13.—A hospital which is admirable in many respects includes a nurses' home in which the nurses are dangerously and uncomfortably housed in large dormitories. Query: if a case of contagious disease occurs among the nurses, will the whole dormitory be quarantined?

Economy Means Maximum Service

It is a mistake to consider building cost apart from maintenance cost. Broadly speaking, economy in use is more important than economy in production. A metal door frame may be cheaper in the end than a frame of wood, a tile floor may be cheaper in the end than one of composition, a white metal faucet may be cheaper than a red, a copper cornice cheaper than one of galvanized iron. Durability is not extravagance.

Extravagance in hospital construction resides in mere exterior decoration; in the use for interior finish of costly materials which are not especially durable or easy to care for; in waste of space; and such extravagance usually carries with it the curse of high maintenance costs.

Generally speaking, a concentrated institution is cheapest to build and to operate, but in our discussion of the diversity of hospital function we saw that extreme concentration and simplicity of design ultimately defeat their own ends; when concentration and simplicity overreach themselves, the hospital is forced either to live in a straight-jacket or to cast off its original garment. To spend without proportionate present or future gain is to be extravagant, and such expenditure is extravagance, even though it be committed in the name of unity, diversity, flexibility, health values, or economy. An economical hospital is one in which every cubic foot of construction gives maximum prolonged service.

Illustration 14.—With the idea of unity in mind, an architect designed a magnificent city hospital in such a manner that a dozen or more buildings were made to appear as one. The ward buildings were the most numerous. The wards themselves were thirty feet wide, and for these wards it was thought that ceilings of fourteen feet in the clear would be about right. This ceiling height was carried through the entire group; thus scores of narrow single bedrooms, intended for the house staff, were given a ceiling of fourteen feet; so were the servants' dormitories, and numerous small rooms in the pathological laboratory.

Illustration 15.—In the case of a well known hospital, the ward unit consists of a large open ward measuring about thirty-five by eighty-five feet and containing twenty-four beds, to which is attached a group of service and quiet rooms, all comparatively small, covering an area equal to that of the open ward. For the large open ward a ceiling height of seventeen feet six inches was adopted. This height obviously would have been ridiculous in the small rooms in the attached wing, and the ceilings were accordingly reduced by means of furred ceilings to twelve feet. What a waste of building material!

Illustration 16.—To permit diversity in the planning of the several sections of a hospital of 1,200 beds, and with a view to the attainment of maximum flexibility, a plan of so open a character was adopted as to necessitate the construction of numerous connecting corridors. The individual buildings were hundreds of feet apart. In a study of the conditions under which they were obliged to work, the staff learned that each one spent more than an hour a day in the corridors. Estimate what these corridors cost the hospital in construction, the staff in energy, the patients in service!

Illustration 17.—To save expense, a 400 bed hospital of six stories was deprived of all balconies. In this hospital the patients' water closets were placed in wooden stalls. Only two elevators were installed (in place of four required), and a cheap form of composition was used for the kitchen floor. And the chairman of the building committee, a self-styled economist, was hurt when told that he had not built economically!

Illustration 18.—In a private hospital, every patient was given a private bathroom measuring seven by twelve feet. In this same hospital,

thirty-five by thirty-five by twenty-five feet were chosen as suitable dimensions for the operating rooms.

Illustration 19.—In a pavilion designed for private patients, five service rooms were attached to six private patients' rooms; the service facilities were ample for sixteen rooms.

Illustration 20.—A ward unit of thirty-two beds was so subdivided and arranged as to require, for safe supervision at night, the presence of not less than four night nurses.

Enough has been said to show that in hospital planning the basic ideas of unity, diversity, flexibility, health, and economy must govern. Judged by this test, many of the most conspicuous hospitals in the country will be found to be sadly deficient. Most men are imitators, and good examples will be followed in the future, as bad examples have been followed in the past, if only the better way is made widely known. It is a serious mistake to present as models to be imitated the magnificent architectural piles which Germany produced for hospital use in the fifty year period preceding the World War, or Italian, Danish, French, or British imitations of the original German models.

At a time when segregation was the only known means of attaining safety, it was logical to plan as did the architects and medical men who planned the Hamburg-Eppendorf Krankenhaus, the first and for many years the best known of the great pavilion hospitals of Germany. The idea of segregation, reinforced by professorial pride and independence, continued to dominate when Berlin produced the Virchow Krankenhaus. But, however interesting to the historian, these examples of hospital architecture do not today conform to vital needs. Judged by the requirements of modern medicine, a hospital plant covering sixty or eighty acres, to any part of which a member of the staff may be compelled to go again and again in the discharge of duty, or to any part of which a patient may have to be taken for examination and treatment, is a cumbersome burden. But if, as we must, we abandon the type of hospital which is all loose ends, we should not make the mistake of rushing to the other extreme. In planning a hospital today, it is a mistake to adopt a form so rigid as to oppose insurmountable obstacles to that free, incalculable, and probably asymmetrical growth which is indispensable to the efficient hospital of the twentieth century.

The Serbs have never known how to preserve or can fruits and vegetables until Red Cross workers taught some of the housewives last summer. No doubt that would be a promising field for the establishment of canning factories now, for once having had such luxuries the people of Serbia are not likely to want to give them up.

U. S. PUBLIC HEALTH SERVICE INCREASES HOSPITAL BEDS IN PENNSYLVANIA

Plans prepared by the United States Public Health Service and about to be put into effect will largely increase the hospital facilities for ex-service men in Pennsylvania, particularly at Pittsburgh and Philadelphia.

At Pittsburgh the capacity of the Marine Hospital (No. 15) will be trebled, at first, by the addition of a dozen portable buildings of approved type, and later, when Congress appropriates the necessary money, by new and permanent brick and tile construction. At present funds are available for the erection of portable temporary buildings only. The importance of Pittsburgh and the growing demand on the government's hospital facilities there make these additions imperative.

At Philadelphia the U. S. Public Health Service has recently acquired from the navy a large hospital for the care of ex-service men suffering from nervous and mental diseases. Its capacity is between 400 and 500 beds. Recent heavy demands for accommodation by this type of patients have conclusively shown the need for this hospital, which it is hoped may become permanently devoted to its present use.

PROTEIN TESTS FOR ASTHMA AND OTHER DISEASES

Three Boston hospitals are trying experiments in protein sensitization to find out what foods are poisonous to people afflicted with certain diseases. Patients are inoculated with the proteins from foods and other substances, and subsequent reactions or absence of reactions indicate whether these proteins are hostile or friendly. The experiments are being applied especially in the case of bronchial asthma and hay fever, but also in other diseases such as indigestion and children's ailments. In applying the test the physician makes a tiny scratch on the skin, applies a drop of a weak solution of sodium hydrate, and in this places the proteins of whatever substances he suspects as being the cause of the trouble. In the case of a baker, flour dust may be under suspicion, in that of a hostler it may be proteins from horse hairs. Pollen from ragweed and various other plants which are sources of sneezing distress are also tested in this way.

OKLAHOMA SECTION OF AMERICAN COLLEGE OF SURGEONS

The first annual meeting of the Oklahoma section of the American College of Surgeons was held in Oklahoma City, February 21 and 22. The afternoon of the first day was given over to the Hospital Conference. Harold M. Stephens, director of hospital activities, American College of Surgeons, spoke on "The Hospital Program of the American College of Surgeons and the Meaning of the Minimum Standard;" Rev. C. B. Moulinier, president of the Catholic Hospital Association, on "The Program of the American College of Surgeons, as Applied to Catholic Hospitals;" and the other talks were along the lines of the standardization program of the College. Twenty-eight of the thirty members of the Oklahoma section of the College were present at the meeting, which was a decided success.

MALARIA SERIOUS IN RUSSIA

A special dispatch from Moscow states there are ten million cases of malignant malaria in Russia, and that the mortality is about 3 per cent of those stricken. The report also states there are only 5,000 pounds of quinin in the country.

SOME FEATURES OF THE LATTER DAY SAINTS HOSPITAL

By H. NEWTON THORNTON, Architect, Idaho Falls, Idaho

ONE of the most notable features of architectural practice in recent years has been the rapid development of hospital planning. The careful attention given by the architect to this branch of work has formed a striking instance of our progressive civilization.

A well planned and equipped hospital of today affords such immense advantages to the patient for his rapid recovery, over the out of date methods and disadvantages of home nursing, that it is now becoming customary to go to the hospital even for minor ailments. Some of the reasons for this attitude on the part of the public are the great advance in surgery, the good lighting for operations making for greater safety, the expert service, and the developments of nursing, all of which have been factors in the steady growth of hospital construction.

The Latter Day Saints Hospital at Idaho Falls, now in course of erection at an approximate cost of $400,000, is one of the several new hospital buildings contemplated by the Latter Day Saints Church, commonly called "Mormon" Church, whose headquarters are Salt Lake City, Utah.

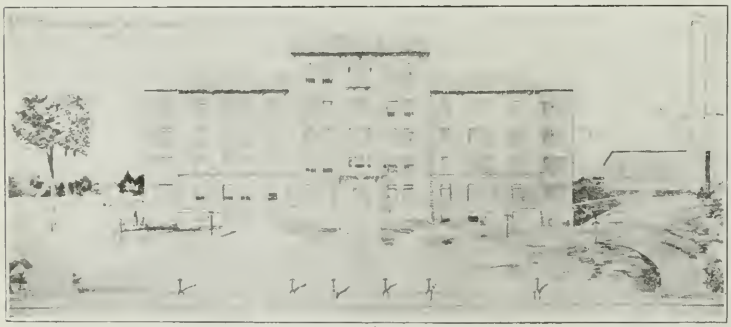
The Idaho Falls Hospital will serve a long felt want in the southern part of Idaho, and is situated on rising ground in a beautiful part of the city, on the banks of the Snake River. Its main front faces Western Avenue, a boulevard 120 feet wide, the lot itself being eight feet above the street level, and the building 175 feet from the street. From the rear of the building the grounds fall to the river some 600 feet distant, forming an ideal garden site, over which a southern breeze comes at all times of the year. There is also ample room here for extension of the buildings.

The plan of the building has been given the most careful consideration both as to future extensions and arrangements, and is in conformity with the most recent developments in hospital planning. Numerous conferences have been held with a large building committee, and leading doctors in this section; and the architect, with some of the committee, visited many large hospitals in the East before the final working plans were adopted. No pains have been spared to make the building the best possible in every way. The hospital is intended to contain 120 beds, most of them in single rooms.

The general plan is a T shape, with the administrative department at the intersection of the T. In the planning of a large hospital the problem appears to hinge upon three departments, the kitchen department, the administrative department, and the operating suite. The kitchen must be so located that food and supplies may be conveniently brought into the building in large quantities, and after being cooked, sent up quickly to a central position in the building for rapid distribution to the patients. The administrative and service departments on each floor should be located in as central a position as possible. The operating suite should allow the operating rooms, in one unit, to face north, uninterrupted by the staircase and elevator traffic.

The kitchen department, part of which goes up two stories, is situated on the basement floor, and occupies, with the receiving room, refrigerators and ice machinery room, and kitchen stores, the whole of the rear wing basement, with an entrance direct at the rear of the wing.

The plans show two dumbwaiters for the conveyance of food from the kitchen; they are sufficiently large to admit of large electric heated food trucks, so that all the dishing up of the patients' food will be done in the kitchen. It will be conveyed directly to the patients' rooms, or if delay is necessary, it can be kept warm in the service room or at convenient locations in the corridor, as noted on the



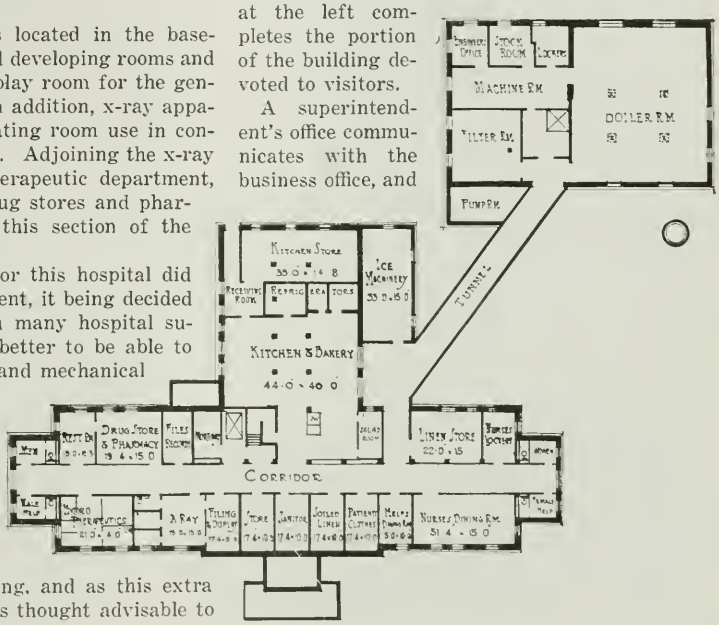
Front elevation of the Latter Day Saints Hospital.

plans. This is expected to remedy the common complaint of patients about cold food where the food has been sent in bulk to the servery on each floor to be dished out from there. Refrigerators are provided in the service rooms on each floor, and also electric warmers, so that light refreshments may be served to patients direct, if necessary.

The feeding of nurses and help will be by a cafeteria, located in the basement, the counter being parallel with the main corridor and adjoining the kitchen as shown.

An x-ray department is located in the basement, with transformer and developing rooms and a large plate filing and display room for the general use of the hospital. In addition, x-ray apparatus is provided for operating room use in connection with the laboratory. Adjoining the x-ray department is the hydrotherapeutic department, and rest room, and the drug stores and pharmacy are also located in this section of the building.

The preliminary plans for this hospital did not contemplate any basement, it being decided through collaboration with many hospital superintendents that it was better to be able to get at the plumbing pipes and mechanical equipment easily, and thus avoid awkward stoppages of pipes, etc. However, the ground was of such sandy formation that it was necessary to extend the foundations down about fourteen feet to get good bearing, and as this extra depth was expensive, it was thought advisable to make some use of it.



Plan of Basement.

On the first floor the service room occupies the central position at the intersection of the corridors, and as this room is not to be used for dishing up food, a combination service and utility room has been adopted. It includes all sterilizing equipment, as shown, except bed pan service, which has rooms separated from the main service room. The incinerator is next to the service room, and behind this, at the intersection of the corridors, is placed the nurses' station, where all records are kept for patients on the floor.

The stairs and elevator occupy the intersection of the corridors on the south side, and adjoining the elevator hall is the ambulance entrance. It was thought best to use the darkest space for the stairs, they being used very little, thus enabling all direct light to be used for revenue producing purposes.

The main floor wards will be used mostly for charitable cases, there being male and female wards for four beds each, in addition to single rooms, with generous solarium facilities on this floor.

At the center of the main front is a hall for the public, reached through a vestibule, and the entire hall and vestibule are to be treated with marble wainscotings and trimmings. A long counter of marble separates the main hall from the business office, and over this is an elliptic arch which helps to give an air of spaciousness by combining the two rooms. A reception room at the left completes the portion of the building devoted to visitors.

A superintendent's office communicates with the business office, and behind this are the doctors' locker rooms and interns' quarters.

A modern doctors' register system, master clock system, and nurses' time recording apparatus are located in the business office, with the telephone operators' department.

The second, third, and fourth floors are divided into private rooms, most of which are for single beds. There are two communicating baths, and one private bath to each floor.

The bed pan service fixtures are arranged in the toilets, one in each wing of the building, and the pan sterilizing equipment is located on the second floor.

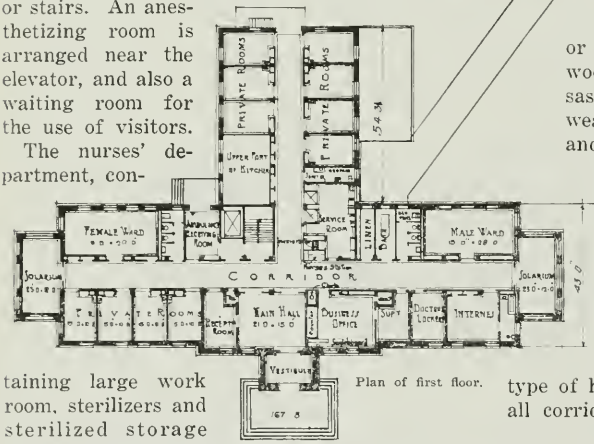
The fourth floor is to be used exclusively for maternity cases. A delivery room adjoins the service room, which is arranged to save duplication in fixtures. The nursery is placed at the rear of the center wing, so that noise from this room

will not disturb the whole floor. Leading out from the nursery is a service room for exclusive use of the nursery, containing laundry tub, infant's bath slab and shampoo equipment, with water sterilizer, also blanket warmers and instrument case. A large linen room for this department is arranged behind the service room.

The fifth floor, which extends over the central portion of the building, contains the operating suite. There are four operating rooms, all facing north, with specially arranged natural and artificial lighting. One operating room will be used for special cases and orthopedic work. The sterilizing and scrub rooms are conveniently and economically arranged between two operating rooms.

The laboratory, with full equipment, including cases for specimens, is located on the fifth floor, near the elevator, and will be equipped with a small dumbwaiter to each floor for service without using the elevator or stairs. An anesthetizing room is arranged near the elevator, and also a waiting room for the use of visitors.

The nurses' department, containing large work room, sterilizers and sterilized storage rooms, with rest and shower rooms complete, is across the hall from the operating rooms, in a central position. The southwest corner of the fifth floor is arranged for doctors' dressing rooms, lockers and showers, and includes a small rest room. The roof over the south wing is to be used as an open air pavilion for patients.



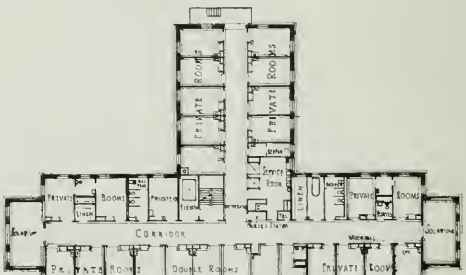
Plan of first floor.

The foundations of the building to the first floor are concrete, and all outside walls brick construction, using a yellow or buff face brick, with cement and stone trimmings. The floors are reinforced concrete, using the T. C. S. pan construction or concrete joists, which admits space for pipes. The cornice and brackets are of copper, and the exterior is plain in design, but pleasing, the vertical lines of the window trim giving an effect of unity to the design.

The finished floors throughout are of mosaic tile, except many of the basement rooms, which are cement, and the halls are finished with a cork linoleum to form a cushion tread with little noise. The borders of all rooms and halls are a magnesite composition, including a large sanitary cove base extended up all walls. Partitions are of plaster block, except in rooms and departments where the walls are to be tiled, which will be burnt hollow tile. All toilets, bath rooms, janitor rooms, service rooms, etc., are tiled four feet high. The floors of the operating rooms are marble mosaic, and also the walls to a height of six feet. All stair work, including landings, is magnesite composition.

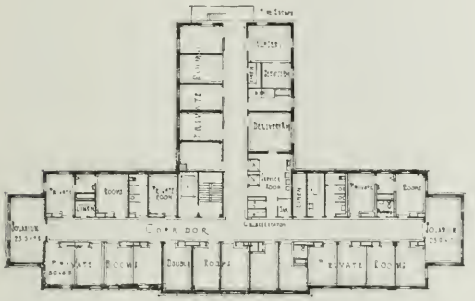
All windows are double hung box frames, with transoms above, the bottom rails of the sash being sufficiently wide to receive Pullman or other suitable ventilators. Frames are wood with hardwood parting strips, and all sash are pine and divided lights, with metal weather strips throughout. The kitchen and boiler house have steel sash.

With the exception of the entrance hall, which is paneled in mahogany, there is no wood trim in the building. All windows and doors and other openings are plastered reveals, and all plastering throughout is Keene's cement smooth finish, to receive flat wall paint or enamel. There are coved corners in the plaster work. All doors are slab type of hospital doors, mahogany veneered, and all corridor doors have inlaid panel. All door frames are metal, flush with plaster work, and plain design.



Plan of second floor.

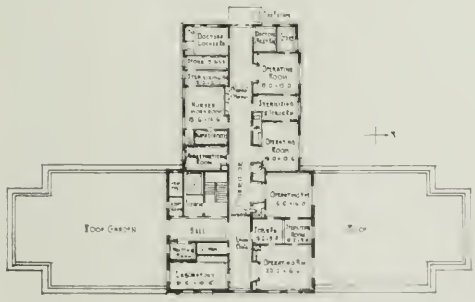
The heating equipment is a vapor system, with heat regulation and natural ventilation, and all radiators are hung on walls, with piping concealed. There will be a deep well driven on the



Plan of third and fourth floors.

site in pump room as shown, with electric power pump and also emergency gas engine, and water softeners installed for laundry use. All water will be filtered for domestic use, and there will be an ice water circulating system for drinking purposes. The pump or well will be used only at certain times of the year, when the city water coming from the river is muddy and works a hardship on filtration.

A silent call system is to be installed. All lighting fixtures are indirect, and it has been considered more economical not to generate electricity on the premises.



Plan of fifth floor.

To the north of the building in the rear is a large power house and laundry, connected with the main building by a tunnel, lighted by sidewalk lights, this location being favored owing to a prevailing wind from the south and southwest.

HOLD CONFERENCE ON TUBERCULOSIS IN NEW YORK

A notable conference on tuberculosis was held in New York City, at the Hotel Biltmore, on January 22. It was an all day meeting of the State Committee on Tuberculosis and Public Health, of the State Charities Aid Association. The general subject of the meeting was "Formulating a Program of Work for 1921." The addresses reviewed the progress made in the movement since its organization in 1907, and discussed the plans and methods of the future.

At the morning session, George F. Canfield, president of the State Charities Aid Association, delivered an address of welcome. The opening address was given by Sir Arthur Newsholme, K.C.B., M.D., of England, formerly principal medical officer of the Local Government Board of England. Sir Arthur is now in this country lecturing at the School of Public Health and Hygiene of Johns Hopkins University. Dr. Hermann M. Biggs, state commissioner of health, spoke on the subject of legislation, and especially on proposed health legislation. Dr. E. H. Restin, medical superintendent of the Rockland County Tuberculosis Hospital, advocated the continuance of the policy of inspection of county hospitals and tuberculosis institutions, as he felt that it made for standardization. Miss Lila C. Wheeler, vice-president of the Cattaraugus County Tuberculosis Committee, spoke on the work of that committee.

The question of enlarging county hospitals was discussed by Dr. Stanley Wang, medical field secretary of the State Committee on Tuberculosis and Public Health. Dr. Charles J. Hatfield, managing director of the National Tuberculosis Association, and Homer Folks, secretary of the State Charities Aid Association, took up the question of additional state sanatorium provision for incipient cases.

HOSPITAL LIBRARY AND SERVICE BUREAU HAS MANY VISITORS

There were many visitors to the Hospital Library and Service Bureau during the week of the Annual Congress on Medical Education, Licensure, Hospitals and Public Health. They included the following: Mr. Michael M. Davis, Jr., New York City; Miss Ida M. Cannon, Massachusetts General Hospital, Boston, Mass.; Miss Louise M. Powell, University of Minnesota Hospital, Minneapolis, Minn.; Miss Marion Vannier, University of Minnesota Hospital, Minneapolis, Minn.; Dr. and Mrs. R. E. Broderick, San Leandro, Cal.; Miss Norma F. Stoughton, assistant secretary, Rockefeller Foundation, New York City; Dr. Winford Smith, director, Johns Hopkins Hospital, Baltimore, Md.; Mr. F. R. Paine, Duluth, Minn.; Miss Laura Logan, Cincinnati General Hospital, Cincinnati, Ohio; Mrs. Jessie MacDonald, St. Luke's Hospital, Chicago, Ill.; Dr. E. H. Lewinski-Corwin, Academy of Medicine, New York City; Dr. R. W. Corwin, Minnequa Hospital, Pueblo, Colo.; Dr. C. G. Parnall, University Hospital, Ann Arbor, Mich.; Dr. Robert R. Sellers, Orwell, Ohio; Miss Lulu G. Graves, Cornell University, Ithaca, N. Y.; Dr. H. J. Whitacre, Tacoma, Wash.; Dr. F. E. Sampson, Creston, Iowa; Mr. Olaf Cervin, Rock Island, Ill.; The Rev. Charles B. Moulinier, Marquette College, Milwaukee, Wis.; Dr. David Strickler, Denver, Colo.; Miss Harriet Gate, Institute for Juvenile Research, Chicago, Ill.; Dr. A. J. Ochsner, Chicago, Ill.; Dr. John M. Dodson, Chicago, Ill.; Dr. Harry E. Mock, Chicago, Ill.; Miss Mary C. Wheeler, Illinois Training School for Nurses, Chicago, Ill.; Miss Bena M. Henderson, Children's Memorial Hospital, Chicago, Ill.; Miss Anna L. Tittman, American Red Cross, Chicago, Ill.; Captain Charles S. J. Butler, Great Lakes, Ill.; Miss Minnie Ahrens, American Red Cross, Chicago, Ill.; Miss Edna L. Foley, Visiting Nurses' Association, Chicago, Ill.; Miss Anna Boller, Infant Welfare Society, Chicago, Ill.; Miss Ming, and Miss Freeley.

COOPERATIVE FINANCING OF HOSPITALS

By FREDERICK D. GREENE, General Secretary, United Hospital Fund of New York, New York City

THE value of united effort to gain a common end goes back, not only to the ancient fable of the old man and his sons and the bundle of sticks, but to the dawn of civilization. The progress of society may be measured by the degree to which the principle of cooperation has been intelligently grasped and wisely applied. But united effort is valuable only so far as there is a goal which is worth while, and which is sought with due regard to all the factors involved. Care must be taken lest unity degenerate into uniformity and prove to be a step backward.

It is not strange that the watch words of today, "cooperation" and "efficiency," should find their way into hospital financing. The success of campaigns and united community effort had been demonstrated even before the war, but the many war time demands could only have been met in this way. The hospitals and charitable organizations of the country will surely profit by that lesson. A few cities have tried these methods, but only partially.

United effort, of course, is valuable only so far as it is being used for a worthy end. The end in the case of hospital financing will appeal to nearly everyone as being worthy, and the need for assistance in meeting their deficits is surely evident.

The movement to finance charitable enterprises through united community effort has been stimulated by three causes:

1. Previous to the war there had been many successful campaigns to raise money for Young Men's Christian Association buildings and for hospitals.

2. The war made it necessary to raise vast sums for relief and government needs without delay, and this could only be done by organized efforts which rallied the whole community.

3. The general trend of business is toward cooperation with a view to securing the largest results with the greatest economy of effort and expense.

The campaigns above referred to were for single objects like providing a building or an endowment which would not have to be repeated, or they were to meet the imperative necessities of the war and of urgent and colossal distress. The question is naturally raised how far such methods will be successful if used to provide for the ordinary recurrent philanthropic needs of a community.

In answer, the advocates of campaign methods claim that they are based upon fundamentally sound principles, and that their adoption is only a matter of enlightened leadership and progressive education of the community to a point where the advantages to be gained are clearly recognized and the sense of civic responsibility and pride is sufficiently aroused.

In any case it is evident that a community effort to finance philanthropic causes should not be undertaken without three preliminary steps, a thorough study of the situation in all its bearings, so that the actual needs may be clearly known; agreement upon a sound and equitable method of distribution that will command the confidence of the public and meet the reasonable needs of the institutions; and a really workable plan for conducting the canvass on lines which will enlist such willing and adequate cooperation on the part of the public as to give promise of success from year to year.

Where the "Community Chest" idea has been thoroughly developed, as in Cleveland, Cincinnati, Detroit, Rochester, Louisville, and other places, the hospitals have naturally been included, and financed on the same basis as other welfare organizations, that is, on the basis of their annual deficits.

"Community Chest" Applied to Hospitals

In cities which have not adopted the "Community Chest" idea for all welfare organizations, it may be possible to carry it out for the hospitals as a group. The hospitals of a city present a problem having a natural unity, with a self-evident and pressing need, vital to the interests of all and possessing great human appeal.

The principles which govern the successful operation of the "Community Chest" would also apply to cooperative hospital financing, and include the following:

1. Participating organizations must fill a real need and must come up to worthy standards.

2. Budgets of organizations must be thoroughly studied, pruned, and approved by an impartial and competent committee whose action is independent of the beneficiaries, and commands public confidence.

3. Current operating expenses only, should be included in the budgets, and not items for building or capital purposes, which should be independently secured.

4. Appropriations should only provide for actual current deficits after all other sources of income have been used, such as earnings, interest on investments, and current gifts from other sources.

5. Any surplus of an organization at the end of the year should be applied to next year's expenses. Likewise, a justifiable deficit should be cared for in next year's appropriations.

6. Designated gifts may be accepted, but should not be allowed to swell the total budget appropriation made to an organization.

7. Beneficiary organizations agree to make no appeals during the year for current expenses, unless approval is secured because of failure to raise the entire amount needed, or for special emergency.

8. The united and active support of the community in carrying out a thoroughly organized and workable canvass for funds must be assured in order to make the "Community Chest" a success.

Cooperative raising and distribution of funds for hospitals as a group has been tried in few cities and only on a partial basis.

The Denver Federation for Charity and Philanthropy reports that the hospitals of Denver are practically all self-supporting and none of them are members of the Federation. This is accounted for by the fact that Denver has a very large and efficient county hospital, which cares for the major part of the charity work of the city.

St. Louis has had for many years a Hospital Saturday and Sunday Association, which collects about $40,000 a year and distributes it among the hospitals for their free work on a per diem basis.

Methods of the New York Hospital Fund

The United Hospital Fund of New York, now in its forty-first year, includes at present fifty-seven of the leading hospitals of the city. The conditions of membership are incorporation, a high standard of management, at least thirty-five beds, and not less than 5,000 days of free hospital treatment annually. The Corporation includes one representative of each hospital and forty-eight members-at-large, who together elect the board of trustees.

Each member hospital is required to report annually on a uniform blank the main items of its work, income, and expenses, which are submitted to the auditing committee. Funds are collected by committees formed on trade, social, geographic, or institutional lines, and also through churches and benevolent orders, and by mail appeals.

The distribution is on the basis of the number of days of free service given by each hospital during the previous year, combined with the cost per day for ward patients,—a figure which varies with the work done in different institutions, and should be very carefully calculated.

Each hospital is credited not only with the days of wholly free patients, but with that portion of the days given to part paying patients which is not covered by their payments. This portion is ascertained by dividing the total amount received from ward patients as a group, by the per capita cost of ward patients, which gives the number of days treatment which their payments sufficed to pay for. These fully paid for days are then subtracted from the total days given to ward patients who made any payment at all, and the remainder is the amount of free service measured in days, which this group received. Thus if 100 paying ward patients received 1,000 days of care and their total payments were $1,000, and the per capita cost of ward patients was $2.00, it is evident that their payments covered the cost of only 500 days, and that they received 500 days of free service. These free days are then added to the days of wholly free patients to get the total free days of each hospital. The total free days are then multiplied by the cost per day of ward patients (up to but not exceeding $3.00 per day) to get the "credit units" for each institution. The total amount available for distribution is then prorated among the hospitals on the basis of the "credit units" to which each is entitled.

The collections of the United Hospital Fund of New York had been made along conservative lines and had gradually risen to $212,307.86 in 1918. In 1919 campaign methods were used and $938,882.47 was raised. Similar efforts at the end of 1920 have secured $650,000.00, and more is coming in. The lowered returns seem due to business depression, the present unpopularity of campaign methods, and to imperfect organization.

Complexity of the Problem in New York

New York is so vast and so complex that it does not at present afford a helpful example of what may be done in cooperative finance. Only a beginning has been made, and the situation is complicated by old traditions. Cleveland and Rochester afford splendid examples of success in community handling of social problems.

The Cleveland Community Fund is the outgrowth of war time campaigns reinforced by previous years of federation practice, which made a profound impression upon the business and giving public and upon the officers of philanthropic institutions. Its campaign of November 18 through 26, 1919, brought in $4,015,000, and that of November 13 through 22, 1920, reached the goal of $4,500,000, and provided for 105 cooperat-

ing agencies, $885,000 being for causes outside of Cleveland. The total number of workers in the campaign was 8,883. The whole organization, with the exception of clerical workers, was volunteer. Some teams were made up on the basis of institutions represented, some along trade and social lines, and foreign born groups, and some on geographical divisions. The cost of raising, collecting, and distributing the fund came out of the money raised, and amounted in 1919 to 2.8 per cent, which was further reduced by interest of funds on deposit, so that the net cost of the campaign was only 1 per cent. The number of givers was about 150,000, as against about 15,000 under the old methods.

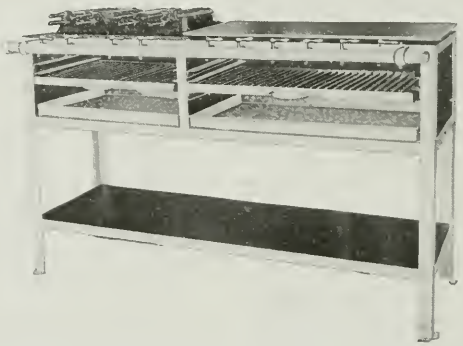
The Community Chest of Rochester, N. Y., raised in 1919, $1,254,831. In May, 1920, $1,164,831 was raised from 66,257 givers, with the help of about 4,000 volunteer canvassers. The cost of collection and distribution was only 2.7 per cent, and was paid by one contributor.

Successful campaigns show that the keynote should be friendliness, the big family feeling, the good neighbor thought, the "I care" idea.

SELECTING THE HOSPITAL'S KITCHEN EQUIPMENT*

By HERBERT O. COLLINS, M.D., St. Paul, Minn.

IN KITCHEN equipment, the choice of the material from which the utensils are made will, to a certain extent, be a matter of taste and expense. Iron and copper utensils, once so often seen in hospital kitchens, have been nearly all replaced by more suitable ware, although iron or steel is still preferred by many for skillets and frying pans, or even for kettles for certain purposes; while sheet iron, if heavy, can hardly yet be replaced for baking pans. But most of the utensils used in a modern kitchen will be limited to those made either of heavily tinned steel, (the so-called retinned steel), enameled ware, or aluminum.



A combination griddle, toaster, and waffle iron, the top has a heavy plate of polished steel for griddle cakes, heated by the latest improved gas burners, which are easily cleaned. It has waffle irons on the end for twelve cakes. Below the top and heated by the same burners, by deflected heat, are the grills for toasting bread. The stand is made of heavy angle iron, painted black, with aluminum trimmings. The shelf of galvanized steel underneath is very convenient for the batter pail.

Objections to the tinned ware will be found in the tendency of the tin to wear off, necessitating constant replating, or it will become both unsightly and unsanitary. Enameled ware is very satisfactory when new, but does not stand the hard use to which it is subjected in a hospital kitchen, even when great care is taken in its selection. The cheaper enameled ware is not worth considering, as it is sure to chip very soon after its purchase, and cannot be repaired.

Probably the most satisfactory ware that can be purchased today, for most purposes, and the cheapest in the long run, is that made of aluminum; but of this only the best and heaviest grades should be considered. All handles should be plain and substantial, welded securely to the vessel rather than simply riveted on, and the edges of the vessels, where the greatest wear comes, should be smooth, and protected, when possible, by reinforcement.

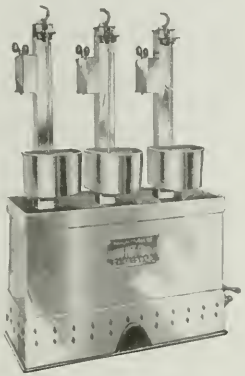
When there is a choice, round vessels, or those with rounded corners, should be preferred, to those with square corners, as being more easily cleaned and wearing better. Most of the equipment used in the kitchen can now be obtained in aluminum, including the coffee urns and the steam kettles. These larger pieces, however, while very desirable, are rather expensive. For this reason, copper, lined with tin for the steam kettles, and the nickel plated metal lined with porcelain for the coffee urns still hold favor, although care should be taken to see that the lining of each is recoated or renewed as needed.

The selection of suitable ware for the plumbing fixtures will be affected chiefly by the question of expense. Good fixtures can be obtained in either vitreous ware or enameled iron, while special use may be made of either soapstone or slate for certain fixtures. The solid porcelain fixtures, so much lauded some years ago, are practically out of date today and are seldom specified by

*This is the second of a series of articles appearing in The Modern Hospital on the hospital's food service.

architects. They have a decided tendency to chip along the edges, and as such places become dark, they are soon unsightly and unsanitary.

Although the vitreous ware is slightly the most expensive in first cost, it will usually give the best satisfaction in the end. It has not the same tendency to chip or crack, shown by either the porcelain or the enameled iron, and when this does occur, the injured spot does not turn dark as in the other kinds mentioned. It is possible, however, to obtain enameled iron fixtures which are well designed, and with proper care they will last and look well for some time. But the saving in their cost, as compared with a good line of vitreous fixtures, is so slight that, when the advantages of the latter are considered, the hospital which deliberately chooses the enameled iron when something better and more durable could have been obtained, will usually regret it after a few years.



An automatic egg-boiler, which may be heated by gas or steam, and which insures the cooking of the eggs exactly the right number of seconds.

Pot sinks, for washing large utensils, and the sinks for washing potatoes and some other vegetables, should be deep and large enough to take the largest vessels used in the kitchen. They are often made of enameled or galvanized iron or of steel, but more satisfactory ones may be specially made of soapstone. A shallow sink for the smaller vessels will be found a convenient addition.

Square or sharp corners on fixtures should be avoided as liable to chip off. All sinks should have rolled or rounded corners and edges to prevent injury to utensils, and should be equipped with strainers and grease traps.

Steam Most Economical for Cooking

The range should be heavy and substantial. Ranges are usually sold in sections, each section containing an oven, which should be large and roomy. Two sections of an ordinary "hotel" range will be ample for a hospital of one or two hundred beds. The warming oven is not often needed, but a shelf running the full length of the range will be very convenient.

The choice of the fuel for the kitchen will need careful consideration, and will have to be decided before the range is selected. Steam should be made use of wherever possible, as it not only serves its special purpose, but if live steam is available it will be found to be the most economical cooking medium. For the range and bake ovens the choice will lie between coal, gas, and electricity.

Between gas and coal as cooking fuel there can be but little hesitation, unless the difference in the cost is unusually great. For many reasons, gas is to be preferred to coal, and in most communities will not be found more expensive, provided proper care is taken to conserve its use. Coal, at its best, is dirty, and requires considerable work to keep the bunkers in the kitchen filled, and the ashes removed. The fire is not so easily controlled and there is waste of fuel for this reason.

Electric cooking is becoming more common every year, and it has many advantages over other cooking media. It is the most easily controlled, gives a more even heat than either gas or coal, and better results in many ways. Electric baking will be found a special delight, as results are more dependable than with the use of either coal or gas. Meats roasted in an electric oven have a flavor which they do not otherwise possess; they are also more juicy and tender, due to the fact that there is less circulation of air in the electric oven, so that the fumes of the roasting, which would otherwise be lost, are retained.

Costs Vary in Different Communities

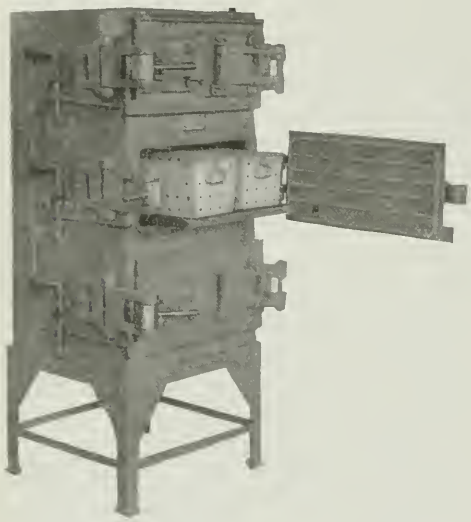
It would not be possible to give reliable comparative figures as to the economy of the various fuels, owing to the inevitable difference in the cost in different parts of the country. It has been estimated that, as a cooking medium, electricity at a cost of three cents per K. W. H. about equals the cost of gas at one dollar per thousand cubic feet,

A steel top work table with iron pipe legs and a galvanized iron shelf ten inches above the floor. It has also one galvanized drawer.

or coal or coke at twelve dollars per ton. Using these figures as a basis for calculation, it should be possible to make a fairly reliable estimate for any community.

The "human element" is of about equal importance as the price paid for fuel. A careless cook,

who habitually leaves her fire or heat at its greatest strength, instead of saving it, will waste more fuel or electricity than can be saved by any low rate within practical limits. Special training and close supervision will be required in this regard



An improved upright sectional steam cooker. The body is made of boiler plate steel throughout, which is much less liable to weak spots than cast iron. Each door is fitted with a wooden handle which does not get hot enough to burn the hands, and all danger of being scalded is eliminated by the automatic cut-off of steam whenever the door is opened. The baskets are supported upon a sliding shelf, which is operated by means of a lever attached to the door.

in the use of either electricity or gas. If the cook makes a practice of turning on either medium to its full capacity, and leaving it so, no rates will be cheap enough to overcome the careless waste. In using an electric range or oven she should be instructed to first turn the switches to "full" until the range or oven has attained the required heat. The heat can then be retained at the proper degree by turning the switch back to "medium" or even to "low." Much the same can be done in the use of gas. In fact, it is in connection with this "flexibility" of the control of the heat that we find much of the economy claimed for both gas and electricity over coal.

Some economy will also be found in the amount of food material used, where electricity is the cooking medium. There is less shrinkage in meats roasted in an electric oven than in one heated by other means. It would not be possible to give exact figures on such a point, as the shrinkage will vary, with any kind of roasting, according to the nature of the meat. The fatter the meat, the more shrinkage will be found, due to the extraction of the oil. Thus, pork will shrink more than beef, and a fat cut of beef more than a lean one. But with any cut a smaller loss will be met if it is roasted in the almost air-tight electric oven. It will also be found that the meats so roasted will be very tender and juicy, making it possible to use cheaper cuts if that is desired, and still obtain as good a finished product.

Other advantages claimed for electricity as a cooking medium are the cleanliness of the process; the saving in time and labor; better cooking of the food because of the constant, unchanging, and evenly distributed heat; and a more sanitary condition in the kitchen and bakery, due to the absence of coal bins, fires, ashes, and dirty flues.

It would seem, therefore, that electricity is the ideal medium for cooking in the hospital kitchen today, provided it can be obtained at a reasonable rate; with gas a second choice; and coal only when the price of electricity and gas renders them unobtainable.

The following equipment will be needed in the kitchens of a one hundred bed hospital. Other lists will be included in subsequent articles, in connection with the discussion of the various departments of the hospital as related to the food problem.

Main Kitchen

1 Range (2 sections)
1 Steam table
1 Table, wood top, heavy
1 Cook's work table, metal top. Saucepan rack above
1 Vegetable steamer (2 sections)
2 Jacketed kettles, 25 gals.
1 Coffee urn, 10 to 12 gals.
1 Hot water urn, 10 to 12 gals.
1 Deep sink (for utensils)
1 Shallow sink (for utensils)
1 Lavatory
1 Cupboard for utensils
1 Double boiler, 2 quarts
1 Double boiler, 4 quarts
1 Egg whip, 14 in.
3 Heavy roast pans, size of ovens in range
2 heavy roast pans, one-half size of ovens
3 Yellow mixing bowls, 10 in.
1 Grater, heavy tin
2 Steel frying pans, 8 in.
2 Steel frying pans, 11 in.
2 Steel frying pans, 14 in.
1 2 qt. stone crock (for salt)
1 Large pepper shaker
1 5 lb. sugar can
1 Flour can, capacity 5 lbs.
1 Hammer
1 Hatchet
1 Meat saw
1 Butcher's cleaver
1 Gravy ladle
3 "Hotel ladles," 6 in.
1 Shears, 8 in., heavy
1 Family scales
2 Garbage pails
3 Garbage cans, 30 gals.
1 Funnel, 5 in.
1 Chinese strainer, 7 in.
2 Large meat forks, 2 tined
1 Potato ricer, heavy
1 Potato masher, mechanical, hand power
1 Coffee grinder, electric power
2 Can openers
1 Spatula, 8 in.
2 Large wooden spoons
2 Large metal spoons, 12 in.
1 Wooden potato masher
1 Food grinder (hand power)
1 Clock
1 Hotel colander, 14 in.
2 Cake turners
1 Cork screw
1 French fryer, 14 in.
4 Chairs or stools
1 Rack for paper or linen hand towels
2 Measuring cups, 1 pint
1 Butter cutter
2 17 qt. heavy dish pans
1 2 gal. stone crock, with cover
1 5 gal. stone crock, with cover
3 White enameled trays, 12 by 17 in.

- 1 Butcher's steel
- 1 Butcher's knife
- 1 Carving knife
- 1 Boning knife
- 1 Bread knife
- 1 Bread slicer (mechanical)
- 1 Wooden bowl (16 in. diameter)
- 2 Skimmers (5 in. and 6 in.)
- 3 Paring knives
- 2 Wooden tubs, for vegetables
- 2 Galvanized iron pails, 12 qt.
- 2 Lipped sauce pans, 1½ qts.
- 1 Deep stock pot, 3 gals.
- 2 Shallow stock pots, 3 gals.
- 2 Sauce pans, 3 gals., with handles

Pastry Bakery

- 1 Bake oven, 3 shelf
- 1 Gas or electric plate, 4 burner
- 2 Bins for flour (metal lined)
- 1 Sink
- 1 Work table, metal, with metal drawers
- 1 Ice cream machine, electric power
- Ice cream packers (number needed depending on number of dining rooms and ward diet kitchens)
- 6 Baking pans
- 6 Baking sheets
- 1 Egg whip
- 3 Large kitchen spoons
- 1 Palette knife
- 6 Cake pans
- 1 Steel mixing bowl, 16 in.
- 1 Mixing machine (electric power)
- 2 Yellow bowls
- 3 Cookie cutters
- 2 Doughnut cutters
- 6 Dozen custard cups
- 24 Pie tins, 10 in.
- 1 Flour dredge
- 1 Flour sifter
- 1 Refrigerator
- 1 Flour sieve
- 1 Shears
- 1 Family scales
- 1 Can opener
- 6 Muffin pans, 12 each
- 1 Measuring cup, 1 pt.
- 2 Pastry brushes
- 2 Applecorers
- 1 Bread knife
- 1 Counter brush
- 1 Rolling pin
- 2 Chairs or stools
- 1 Pastry rack
- 1 Cupboard or shelving

This cabinet bake oven has a capacity of ninety-six one-pound loaves of bread. It has four decks, each one lined with fire tile, and the bottom one doubly insulated and provided with bar gas burners for heating. Each deck has a separate door so that the contents of the deck may be inspected without disturbing all. The body of the oven is made of two thicknesses of sheet steel insulated with two inches of mineral wool.

Cafeteria

- 1 Steam table (with carving board)
- 1 Coffee urn
- 1 Hot water urn (cup warmers beneath)
- 1 Refrigerator
- 1 Ice cream cabinet
- 1 Milk and cream cooler
- 1 Egg boiler (automatic)
- 1 Pancake griddle
- 1 Toaster (electric)
- 1 Water pitcher (enameled) 4 qt.
- 1 Lemon squeezer
- 2 Dish washing sinks, or 1 dish washing machine, with counters for soiled and clean dishes, to be used for nurses' and interns' dishes only. Main dishwashing of the hospital to be cared for elsewhere.
- 1 Dish cupboard
- 2 Racks above serving counters for cold dishes and desserts
- 1 Butter tub
- 1 Ice pick
- 1 Ice cream server
- 1 Ice tea cooler
- 1 Carving knife
- 1 Carving fork
- 1 Roast beef slicer
- 1 Cake turner
- 1 Gravy ladle
- 6 Table spoons
- 1 Pail, galvanized iron, 2 gals.
- 3 Dozen dish towels.
- 1 Garbage can, 25 gals.

Special Diet Kitchen

- 1 Range, one section, with oven
- 1 Work table, wood top, pan rack above
- 1 Small jacketed kettle, or pastry kettle, 2 gals.
- 1 Deep sink, for washing utensils
- 1 Cupboard for utensils
- 1 Cupboard for dishes
- 1 Double boiler (1 qt.)
- 1 Double boiler (2 qt.)
- 1 Ice cream freezer (1 qt.)
- 1 Ice cream freezer (1 pt.)
- 1 Measuring cup (1 pt.)
- 2 Large spoons, 10 in.
- 1 Clock
- 1 Cake turner
- 1 Cork screw
- 1 Dish pan
- 12 Aluminum trays (12 by 18 in.)
- 2 Paring knives
- 1 Galvanized iron pail, 12 qt.
- 2 Stools or chairs
- 1 Towel rack, for paper or linen hand towels
- 1 Dozen tumblers
- 1 Spatula, 6 in.
- 1 Lemon or fruit squeezer
- Dishes, selected according to the needs of the hospital.
- 1 Egg whip
- 1 Egg beater, mechanical, hand power
- 2 Roast pans, one-half size of oven
- 1 Yellow mixing bowl, 8 in.
- 1 Grater, heavy tin
- 1 Steel fry pan, 8 in.
- 1 1 qt. stone crock for salt
- 1 Pepper shaker
- 1 Flour sieve and shaker
- 1 5 lb. sugar can
- 1 Flour can, 25 lbs.
- 1 Butcher's knife
- 1 Butcher's steel
- 1 Bread knife
- 1 Wooden bowl
- 1 Hotel ladle
- 1 Shears, 6 in.
- 1 Scale (metric system)
- 1 Family scale
- 1 Garbage pail or can (10 gal.)
- 1 Funnel (tin, 4 in.)
- 1 Funnel (glass, 3 in.)
- 1 Strainer
- 1 Can opener
- 1 Mechanical shaker, for preparing beverages

OHIO ASSOCIATIONS TO MEET JOINTLY

There will be a joint meeting held of the Ohio Hospital Association, the Ohio Nurses Association, and the Ohio League of Nursing Education. The purpose of the meeting will be to try to combat the growing tendency among the three groups to divorce themselves from one another. It is felt that if they can meet and discuss common problems, much of this feeling may be overcome. The first two days of the meeting will be confined to the Ohio Hospital Association, the third day will be a joint meeting of the three groups, and the last two days will be devoted to nurses' matters.

SHOULD THE HOSPITAL GIVE MEDICAL CARE TO THE SICK?*

By REV. JOSEPH C. STRAUB, Director of St. John's Hospital, Springfield, Ill.

THE November issue of THE MODERN HOSPITAL brings an article by Dr. A. R. Warner, entitled "Organizing the American Hospital Field." In this article we find the statement, "The purposes of all hospitals are the same—to give the sick of their communities the best medical care possible, and to promote the acquiring of knowledge and skill in medical practice. So-called 'teaching hospitals' differ from others only in their opportunities—not at all in their purpose." The doctrine annunciated in this quotation is not new, but one that for years past has been used as a specious argument in favor of the so-called standardization of hospitals, and has even been made the foundation on which the American College of Surgeons built their hospital standard. It is, therefore, not the novelty of the doctrine formulated in this statement that attracts our attention, but the question as to its truth. The following analysis will attempt to give an answer to this question. Dr. Warner's wording of the doctrine will serve merely as a tangible example for this analysis.

The two sentences of the quotation enunciate three distinct statements: viz., that the purposes of all the hospitals are (a) to give medical care to the sick, (b) to promote the acquiring of knowledge and skill in medical practice, and (c) that the so-called teaching hospitals differ from others only in their opportunities and not at all in their purpose. Before analyzing these statements, however, it will be of advantage to explain clearly some of the terms used in the wording of the doctrine.

The first and perhaps most important of these is the word "hospital." This may be defined as an organization that has for its purpose the care of the sick, in buildings adapted to this care. The organization as a body may consist either of physicians or of non-medical persons, such as, for instance, religious communities or corporations of lay persons either for charitable purposes or for profit. The largest number of the hospital organizations in question are those consisting of non-medical bodies, organized for charitable purposes.

The next term that demands our attention is the word "care." The care that the patient receives at or from the hospital is two-fold: the care given by the physician, usually termed medical care, and the nursing care combined with board and lodging. Dr. Warner evidently combines both the physician's treatment and the nursing care in the term "medical care."

Another term in the quotation that needs explanation is the words "to give." The use of these words in the sentence as quoted above justifies the following conclusions: (a) that the patient does not merely receive the medical care at, but also from the hospital, and, hence, (b) that the hospital must be responsible for this care which the patient receives from it, unless the institution expressly eschews such responsibility.

The last term to which a moment of our time must be given is "all hospitals." There can be no doubt that some hospitals, owing to the nature of their management, can and, perhaps, should have as their purpose the giving of medical care. To this class belong all hospitals either owned and managed or, if not owned, at least managed, by physicians. All other hospitals, however, whose ownership and management are in the hands of non-medical persons or organizations, would trespass on the work peculiar to the physician, if they should make it their purpose to give medical care.

Is the Hospital's Purpose Medical Care?

Having cleared the way by these preliminary explanations, we may now examine the first statement quoted from the doctor's article, that "the purpose of all hospitals is to give the sick of their communities the best medical care possible." This statement scarcely harmonizes with the general opinion of the physicians, that the patient belongs to the doctor, an opinion confirmed by Dr. Sir George Newman of London, England, in an article, "The State and Future Medical Practice," (*Modern Medicine*, Vol. 2, No. 11), where he insists that even "the state should never take out of the hands of the general practitioner, whether in contractual practice or otherwise, the patient whom he is willing and competent to handle on reasonable terms." Much less, it appears, would the hospital be justified in doing this. Yet, the conclusions to which Dr. Warner's statement logically lead, bring about this unde-

*Father Straub's article embodies a clear cut, logical presentation of one conception of a hospital's purpose. Since its author takes issue with some of the statements which were embodied in Dr. Warner's article on "Organizing the American Hospital Field," which appeared in the November, 1920, issue of THE MODERN HOSPITAL, the latter was invited to discuss Father Straub's article and give his answer to the question which constitutes the title of Father Straub's article. This Dr. Warner has done in an article which appears on page 325 of this issue. The subject is now open for discussion and our readers are invited to send us their comments. Let them be brief and to the point.—EDITOR.

sirable condition by giving to the hospital the full right to claim the patient as its own the moment he enters the building, and to assign him to any physician it may choose, thus placing the physician in the position of a hospital employee. Let us see how these conclusions follow from the statement.

If it is in fact the purpose of all hospitals to give medical care, then it necessarily follows that the hospital must also be ready to accept the responsibility which the actual carrying out of this purpose entails. The hospital must be responsible not only for the quality of the nursing care but also of the physician's medical and surgical treatment; it must, in the last analysis, be responsible for all injury done the patients through negligence or ignorance on the part of both the nurse and the physician; it ought to be legally held responsible for what to this day no court of law has ever held a hospital responsible, viz., the physician's negligence or culpable ignorance in a malpractice suit.

But wherever there is a responsibility, there is also a correlated right. In the case of the hospital's responsibility for the medical care of the patient, this right would consist in the use of the means at hand to protect itself against any and all losses that such responsibility would entail. The best means to obtain this end would be to claim the patient as its own from the moment that he enters the hospital, and then assign him for medical or surgical treatment to the physician who, in its opinion, is best qualified to treat the patient without loss to the hospital. The exercise of this right would necessarily nullify all claim to the patient that the physician would otherwise have as his medical adviser, and would also make in the highest degree unjustifiable any resentment that the physician might harbor on account of such action, whether it be a routine practice of the hospital or take place only in individual cases.

Physician Employee of Institution

Another, to the medical profession, most disagreeable conclusion, which follows as a logical consequence from the hospital's responsibility for the quality of the medical care, and the correlated right to protect itself by claiming as its own the patient from the moment that he enters the hospital building, is that every physician treating a patient in the hospital becomes by virtue of this very act an employee of the institution in the full meaning of this term. As such, the physician loses his right to collect the customary fee for his work from the patient, and must look to the hospital, his employer, for a just compensation of his services. The hospital may, of course, waive this right, either temporarily or permanently, and permit the physician to collect his own fee from the patient, but this waiver would not destroy the fact that it is only by permission of the hospital that the physician may do this.

The offensiveness of this conclusion to the physician with a fine sense of his professional dignity is aggravated by the fact that, in the large majority of cases, he would become the employee of a non-medical organization, which thus would have the right to sell his professional services to the patient in the hospital. This offensiveness would only then be mitigated if the assertion proved true that the physician is an essential factor in the organization of the hospital and hence could not in truth be called an employee. We actually have this condition in the private hospitals that are owned and conducted by a physician or a group of physicians. Here the doctor may be said to be the hospital, and vice versa. The same, however, cannot be asserted of the hospitals which are owned and managed by religious communities, or other non-medical organizations. In all these hospitals the doctor, although his services are necessary for the operation of the hospital, is not an essential part of this organization, no more than a lawyer pleading a case in a criminal court can be said to be an essential part of this court.

Profession Accepts the Doctrine

It would appear here that a doctrine, which in its final analysis leads to conclusions so offensive to the dignity of the medical profession, would not have been able to find favor with this profession. Yet it is an undeniable fact that not only one or two physicians, but entire organizations of medical men, have almost gloried in this doctrine. While faithful to its traditions, the profession as a body has always resented any action of individual members which showed a tendency to lower the professional duties to the level of a commercial commodity, as, for instance, the entering into a contract for medical services with non-medical organizations, such as insurance companies and industrial corporations. Yet no voice was ever raised by the profession in opposition to the doctrine which makes it the purpose of the non-medical hospital organization to give medical care and be responsible for the physician's medical and surgical treatment of the sick. Again, the profession is up in arms against osteopaths, chiropractors, and the like, for the reason that these men presume to do work for which only the physician is qualified, while at the same time it insists that the hospital, which can only take the place of the nurse, and never that of the physician, have for its purpose the giving of medical

care. Still worse, this same profession, while insisting that it is the purpose of the hospital to give medical care and that, consequently, it has also the responsibility for the quality of this care, would consider it an insult and an infringement of its professional rights and privileges, should the hospital act on this doctrine and exercise the consequent right by claiming as its own every patient brought to the hospital, and by treating the physician to whom it assigns its patients as the employee of the institution. Whence this inconsistency? Is it, perhaps, that being aware of the hospital's need of their services, the physicians, living up to the principle that might is right, and, without paying any heed to the just rights of the hospital, aim to protect only their own rights against any infringement? Or, is it due to the fact that, led astray by a specious doctrine, they in their haste to gain their end did not take time to analyze it and thus to discover the poison contained in it? Justice compels us to accept the latter answer, for although the principle that "might is right" may be the guiding motive of individual members and even of groups, the profession as a body can scarcely be accused of this motive.

Other Influential Factors

In addition to this very common fault of accepting the statements of others as true, without giving oneself the trouble to thoroughly analyze them before making them the basis of our actions and the premises for our conclusions, there are several other factors that have undoubtedly greatly influenced the rapid spread of the doctrine which resulted in the unprecedented fusion of the physician's duties into those of the non-medical hospital organization.

The first of these factors is that in the past the sharp line of distinction between the hospital owned or at least managed by a physician or a group of physicians, and that owned and managed by a non-medical organization, has not been clearly kept in mind when the question of responsibility and the purpose and work of the hospital was discussed. The former, owing to the medical character of its organization, can and, perhaps, should have for its purpose the giving of medical care; the latter is excluded from taking upon itself the performing of such duties for the reason that no non-medical organization has the right to assume the duties and obligations of the physician, who alone by his education and license from the state is equipped and appointed for this work. The most that can be conceded to this class of hospitals is the nursing care of the sick. In fact, next to providing for board and lodging, it is the hospital's peculiar work to take the place of the nurse. Had the fact not been lost sight of, that the non-medical hospital organization can take upon itself only the duties of the nurse, and never those of the physician, the hazy fusion of the physician's work with that of the hospital could not have taken place.

The position that the medical staff holds in a very large number of hospitals has undoubtedly also helped to bring about this confusion. In some hospitals it is looked upon as an advisory body, in others the position is one of honor only. The hospital's need of the physician's service, however, led the staff to seek privileges and rights in the administration of the hospital that do not strictly belong to it. To justify the assumption of such rights and privileges, the hospital organization was given a quasi-medical character, without, however, being granted the claims that such character must necessarily create. Thus the anomaly of a non-medical organization with the physician's duties but without the physician's rights and privileges was brought into existence. The staff organization of our state and municipal hospitals may have stood sponsor to this anomaly on account of a desire on the part of the medical profession to hold a like position in all other hospitals as far as authority and privileges are concerned. That this, in the case of non-medical organizations, would necessarily entail also the disadvantage of becoming mere employees of the hospital was, of course, ignored, and that it was in the highest degree unfair to the hospital was not given any attention. It is good to remember that no roof can shelter two masters equal in authority very long without disastrous results for the inmates of the house. Either the one or the other must finally yield. Clear cut division of authority and duties is the only means to preserve harmony and achieve results.

Another influence that may have helped to bring about the elimination of the boundary line which divides the physician's duties from those of the hospital, is the desire on the part of some physicians to transplant European hospital conditions into our American soil. Even a most superficial study of the history of European hospitals would show that such an attempt would be exceedingly hazardous. The fact that in some countries of Europe the results have not been as disastrous as in others is no proof that with our social and political conditions only good would come from it. Our state and even some of our municipal institutions bear testimony to the truth of this statement. It is an acknowledged fact that home grown food, as a rule, is more healthful than that imported from other climes, even though the latter may, on account of its novelty, be more pala-

table. The American hospital as we find it today is home grown; it is the child born from parents —medical science and social conditions—which, although transplanted from an old civilization, have passed through the pioneer days of the struggle for existence and liberty of our country. The same parents nourished it and raised it to what it is today. To attempt to graft this child on a foreign stem, centuries old and with decaying roots, may prove disastrous. We must not forget that both social and political conditions will always find their reflex in the organization and management of the hospital and that, what may grow luxuriantly in a country with monarchial institutions and with at least some traces of union between church and state, may wilt and die in a country like America. If, therefore, the hospitals in Europe, in larger numbers than in our country, are either under the direct control of the municipality, or are organizations that take upon themselves the entire responsibility for the medical care, and employ their physicians on a fixed salary to supervise and give the medical and surgical treatments to the patients, it does not follow that in our country a counterpart of this arrangement is desirable, either from the physician's viewpoint or that of the hospital. There may be some advantages, there are unquestionably many evils, both for the community and the medical profession, that would come from an organization of this nature. The patient actually in the hospital may, perhaps, receive better service, owing to the greater centralization of the hospital work in the person of the physician, and, if the physician and physicians are of the right quality, even medical science may develop with greater facility. On the other hand, the many physicians and patients outside the pale of the hospital will without fail suffer from this exclusion. It would seem, therefore, that unless sufficient hospital facility for all patients and all physicians be available, the better solution would be to hold the medical profession responsible for its own work, and to keep the hospital within the limits prescribed by its non-medical character.

Should the Hospital Teach?

The second statement, that it is the purpose of the hospital to promote knowledge and skill in the medical practice, is also open to serious doubt. If the primary aim of the hospital is to give the best nursing care and comfort possible to the patient, all other aims must be secondary and subservient to this one; if the hospital's chief purpose is to occupy the place of the nurse, it can scarcely be expected to have as its aim the advancement of medical skill and practice. It would be as correct, therefore, to say that it is the purpose of all nursing organizations to promote the acquiring of knowledge and skill in the medical profession, as it is to affirm this of the hospital. No doctor conscious of his dignity as a physician would seriously claim such purpose for the nursing profession. Why then affirm it of the hospital?

But if this purpose, to aid in the advancement of medical skill and knowledge, cannot be the primary object or the purpose of all hospitals, there is no objection if these institutions make it a secondary aim. Yes, it is advisable that they do so. It must not be forgotten, however, that the nursing care, the comfort of the sick, and the consent of the patient are the boundary line at which this activity must halt. The patient in the hospital is there primarily to be cured of his infirmity and not to be used as clinical material for study by interns and members of the medical profession. Before this may be done, the consent of the patient must be obtained. This rule applies even to the records of his infirmity to which the patient has the first, not to say exclusive, claim. His consent must, therefore, also be obtained before even this record may be discussed in the presence of the physicians that had not been called, either in consultation or as assistant physician on the case. This right of the patient the hospital must respect. But it can aid the advancement of the medical profession by persuading the patient to give this permission, by furnishing equipment for a thorough study, by encouraging the physicians to make such study, etc. If this is what Dr. Warner meant to say, every patient, physician, and hospital will be in full accord with him. But the tendency of some members of the medical profession has been to look upon every patient as clinical material for general study, with entire disregard of the patient's personal rights and the hospital's obligations to the patient. Such a stand is presumptuous and cannot be justified. Even science must stop when further advance would mean a transgression of personal rights and privileges.

The third statement, that the so-called teaching hospitals differ from others only in opportunities, also shows traces of having been hastily penned. We may assume that by "teaching hospitals" the doctor means hospitals which are connected with some medical school, and have for their purpose the teaching of interns or medical students, and that the opportunities which the other hospitals lack are such connection with a medical school and such interns and such students. Teaching hospitals, if they wish to be true to their name, cannot well do otherwise than make the teaching of the young men as much their main aim as do the medical schools of which they are, in

fact, a part. These hospitals must teach the practical application of the theoretical knowledge given by the school in order that the young physicians may enter upon the independent practice of their profession without, at least for a time, becoming a menace to the life and health of the community. If the conscientious nursing care of the sick, and their comfort and personal right to privacy and professional secrecy as to the causes and nature of their infirmity did not at times conflict with the purpose of the hospital to teach, then we could indeed conceive it possible to fuse the purpose of caring for the sick, and that of teaching knowledge and skill in the practice of medicine, into one uniform purpose of all hospitals. But the danger of mistakes due to inexperience, the discomfort and lack of secrecy coming from the desire to learn rather than to cure on the part of the young students, make such fusion scarcely possible, and demand that what in other hospitals is the primary end, become subservient to this end in the teaching hospital.

Primary Purpose Should be Didactic

The fact, that the primary purpose of the teaching hospital should be didactic, points out to us the road that we must follow in order to discover other dissimilarities in the two classes of hospitals. We find these in the nature of the medical staff and of the nursing personnel, and also in the guidance to which the teaching hospital should submit.

The medical staff of the teaching hospital should, at least to some extent, consist of professors of the school with which this hospital is connected. The reason for this is, that the young men will more readily yield to the authority of their professors and, hence, will not be apt to be too much troubled with imaginary medical ability both to the detriment of the patient and the hospital, and that they will not quite as readily become dissatisfied, the moment they feel that some of their rights and privileges have been restricted by regulations governing them in the hospital. Again, the professors alone will, as a rule, take sufficient interest and, consequently, will have the necessary patience to teach and not merely to exploit these young men.

The nursing personnel, also, must be of better quality in the teaching hospital than is absolutely necessary in non-teaching institutions. In the first place there must be a greater number of experienced nurses. Then, there should be only a small number, and if possible, no student nurses. It is almost criminal to leave a patient, at all seriously ill, for the greater part of the day and night in the hands of the student nurses and an inexperienced intern. To depend upon the doctor on his daily rounds to correct the young man's mistakes may be waiting until it is too late. Hence also an experienced house physician who has full control over the young men and their work must be in constant attendance during the absence of the attending physician.

Finally, the teaching hospital should be under the direct guidance, if not control, of the school. The reason for this is that the teaching hospital is practically a part of the school, as it gives the practical application of the theoretical teaching given by the school. Only in this way will it be possible to have the harmony and correlation in the teaching of the theory and the practice, which are so necessary for success.

With these qualifications of the teaching hospital in mind, we are surely justified in not subscribing to the statement that teaching hospitals differ from others only in opportunities and not in purpose. The fact alone, that it is not, nor can be, the primary aim of all hospitals to promote the acquiring of knowledge and skill in medical practice, should lead us to look for a flaw in this statement. Of course, it may be true that some so-called teaching hospitals do not differ from other hospitals, but then these have no right to this name, and, if it was the doctor's intention to point to this fact by his remark, we can only be in full accord with him.

The question, therefore, "Should the hospital give medical care," placed at the head of these remarks touch their basic thought, and the answer, which is in the negative, is also the answer, to the three statements quoted from Dr. Warner's article. The non-medical hospital organization, whose scope is confined to the work of providing board and lodging and the nursing care of the sick, trespasses on forbidden ground the moment it presumes to assume duties that are peculiar to the physician. It can, therefore, have for its purpose neither the giving of medical care to the sick, nor, unless it be a teaching hospital, the instructing of the medical student and the practitioner in the duties and the knowledge of their profession. This hospital takes the place of the nurse and not that of the physician. Taking this principle as a premise, the conclusion is justified that the best policy of the medical profession in its relation to the hospital would be, not to insist on placing burdens on the shoulders of this institution for which its place and work in the care of the sick make it unfit, but rather to encourage it to improve and develop in that sphere of activity to which by the work peculiar to itself it is confined and in which it can do the most good. Instead of, therefore, urging responsibilities upon

the hospital that belong to the physician exclusively, it would seem far better both from the viewpoint of the physician and that of the hospital, if the medical profession would encourage it to adopt the following principles as a guide in its beneficent work for suffering humanity and in contributing its share to the advancement of medical science:

1. The patient belongs to the physician who alone is responsible for his professional work.
2. The hospital is responsible only for the nursing care of the sick.
3. The hospital stands ready at all times to cooperate as far as possible with the attending physicians in all efforts to advance medical science.

MEDICAL CARE IS THE MEASURE OF A HOSPITAL'S REAL SERVICE

By A. R. WARNER, M.D., Executive Secretary, American Hospital Association, Chicago, Ill.

THE paper, "Should the Hospital Give Medical Care to the Sick" (p. 320), may well be carefully read by every hospital administrator. It is a very clear and logical presentation of the two present schools of hospital thought, hospital ideals, and hospital policies. These two schools are sharply differentiated by the two questions: "Should the hospital give medical care to the sick?" and "Should the hospital give nursing care combined with board and lodging?" The paper develops very clearly and logically the responsibilities, the organization, the end results, and the position in society of each type. The reader is left to choose the school to which he desires to adhere.

There are, however, a few supplementary arguments which, in the judgment of a confirmed adherent of the "medical care" school, may well be added. These are grouped under two heads. The first is the question of the actual position of the hospital before the law and in the opinion of the public today, i. e., the question of established fact. The second is the theoretical question of desirability and feasibility. Which type of hospital is best—and we agree with Father Straub that no roof can shelter two masters equal in authority very long. Eventually the hospital must become the adherent of either one school or the other and develop the institution definitely in one line or the other. For convenience the two schools will be referred to in this article as the "medical care" school and the "nursing care" school as the board and lodging goes with both.

To the public, the institution called a "hospital" will always mean the same, as to the benefits to be derived therein. The public is beginning to get some distinction of the service as *good* or *bad*, but professional and technical distinctions can never come. These arguments, therefore, apply to all hospitals alike, regardless of organization.

The hospital is either in fact a medical institution responsible for professional care and results, or it is not. In the same way the hospital is either a nursing institution responsible for the nursing care given in the institution, or it is not. Why not make the licensed nurses performing and directing this work personally responsible? The principles involved are the same. Is nursing not yet a profession? If it is, can a lay organization assume its function? But this discussion is confined to the question of "medical care."

The Supreme Court decisions on this subject in the various states disclose great unanimity in adhering to the principle of *respondeat superior* in cases of every nature. No dividing line separating responsibility for medical care and nursing care is apparent. The basis of all decisions appears to have been simply consideration of the welfare of the patient as affected by contact with the institution. In all states but one, this responsibility has been limited in institutions organized "not for profit" to a responsibility for the "exercising of reasonable care in the selection of its agents." The medical staff is clearly included among the agents.

Reasons for Legal Limitation

We do not find clear statements as to the reasons for this limitation, but several have been mentioned. Among these are: (1) broad consideration of public policies, (2) the recognition that the funds of such an institution are trust funds, and therefore, not to be dissipated, and (3) a recognition of an implied waiver on the part of the patient.

The following statement has been copied from one decision as especially clear on this subject: "The maxim of *respondeat superior* is bottomed on this principle, that he who expects to derive advantage from an act which is done by another for him, must answer for any injury which a third person may sustain from it. Since the hospital derives no profit from its work and since it is founded for the sole purpose of conserving the health and life of all who may need its aid, and

since it ministers to those who cannot pay as well as those who can, thus acting as a good Samaritan, justice and sound public policy alike, dictate that it should be exempt from the liability attaching to masters whose only aim is to engage in enterprises of profit or of self-interest. The patient who accepts the services of such an institution, if injured therein by the negligence of an employee, must be content to look for redress to such employee, alone. The principle invoked is analogous to that which exempts municipalities from the rule of *respondeat superior* in the discharge of their governmental functions." (Hall v. Smith, 2 Bing. 156, Wis.)

These Supreme Court decisions have in the past protected the hospitals not organized for profit from suits for damages resulting from medical treatment received within the institution, and have directed such suits against the individual physicians carrying out professional treatment in question, excepting responsibility for "the exercising of reasonable care in the selection of its agents."

Held Responsible for Medical Care

A recent Minnesota Supreme Court decision (Mulliner vs. Evangel, Dickonniessenverein of Minnesota, 301 Minn.) is, however, quite to the contrary. This decision was rendered January 9, 1920, and held the hospital (organized not for profit) responsible for the death of a pneumonia patient who had become delirious and jumped out of a window. The court argued that the hospital should have known the possibility of delirium and self-destruction in pneumonia, and guarded against it. The patient was a pay and private case in the hospital, but the responsibility or the orders of this patient's physician were not considered. The guiding principle as expressed in the decision was as follows: "In our own opinion the rule of liability seems to us best and we adopt it. Briefly stated, these considerations influence us. The doctrine of *respondeat superior*, that is, that a person or corporation shall respond for damages caused by the negligence of one of its employees in the course of his employment, is the rule. It is founded on the doctrine that what one does through another, he does himself." This decision sustained a verdict of $6,500.00 damages against the hospital.

There is nothing in the foregoing, questioning the responsibility of the hospital for the results of the medical work of the institution. In fact, by justifying and establishing limitations, this is acknowledged and established. The decisions seem to the writers to indicate that the law does now hold hospitals responsible for "the physician's negligence or culpable ignorance," but in institutions organized not for profit this is limited to the "exercising of reasonable care in the selection" of these agents (physicians). In other words, the legal interpretation of the hospital is that it gives medical care and is responsible for this. The general public certainly holds the hospital morally responsible.

The considerations of desirability and feasibility offer unlimited opportunity for discussion. The policy of avoiding unnecessary responsibility is generally wise. But can we operate our hospitals with any consideration of the patient's welfare without assuming this responsibility?

Detail of Operation Would Be Difficult

It is difficult to picture the detail of the practical operation of a hospital on the "nursing school" plan. Such an institution must necessarily avoid any responsibility for the medical care. Some of the patients will enter the institution having selected their physician and arranged for their medical care in a satisfactory manner. Some would come without doing so and the necessity for arranging this could be explained to most patients and to their families. A very sick or emergency patient would, of course, be nursed until the necessary arrangements could be made with some physician to assume the responsibility, and in case there was not sufficient time to make these arrangements the coroner could be called in to assume the final responsibility. Perhaps the clamping of bleeding vessels and some other first aid could be given to accident cases as a nursing care. No patient could be excluded for medical reasons, as no diagnosis could be made by the institution or for the institution (without medical agents). The patient's malady would be confidential between himself and his physician. On the other hand, if patients cannot be assigned without assuming medical function, patients unable to arrange with any physician to assume the responsibility of their case must necessarily be refused admission into such an institution.

Laboratory Work is Medical Care

Real problems would arise in the surgical operation, to arrange everything so that it could be carried through without the assumption of medical responsibility by the institution. It is perhaps possible that the hospital could do the sterilizing and render other assistance as the agent of the doctor, yet if this is the physician's responsibility it would, of course, be incumbent upon him to see that all be properly done. The responsibility for x-ray service, laboratory service, and all other special medical service to the patient would remain strictly the responsibility of the physician. How under the "nursing school"

plan would the physician get this work done? It would be quite impossible for the hospital to maintain these services without assuming medical responsibility, as the medical treatment in some cases would be based entirely upon, or consist entirely of laboratory work. Would the physicians of the community rent space in the hospital and maintain the laboratories to be prepared to give their patients proper treatment? If so, why don't they do this in towns without hospitals?

Is the compounding of medicines nursing care, or medical care? If medical care, the physicians could organize a cooperative drug room the same as the various laboratories.

The intern doing professional work must be responsible wholly and directly to the physician, and must be always his agent. The physician could probably arrange for his board and lodging either in the hospital or nearby, as needed. The physicians would be responsible for securing the interns and for their work. They would come to the hospital only to do such work as the physicians *severally* should order. Perhaps the physicians could devise rules for them to follow in determining the precedence of these orders.

As medicine has developed as an exact science and not as an art, there remain but few committed to the policy of secrecy within the profession, or objections to the recording of medical findings and procedures carried out in the institution, except the physician abortionists. But even the novice in this work would find no difficulty in practicing in a "nursing care" institution. No one would have the right to know or to question. Such information is all medical. A medical institution knows how this practice is carried on and requires a microscopical examination of all curettings by its agents. The saving of the curettings and the making of sections therefrom would have no place in a nursing institution. This would be the duty of the physician to do, but not to divulge the findings without the patient's consent.

Teaching Hospitals Not Primarily Didactic

Nothing can be gained from any discussion as to the ownership of the patient. The American public persists in maintaining its right to seek alleviation for physical ills from the hands of God, from institutions, from physicians, from other men professing special powers, from patent medicines, and also from a large variety of cults and ideas; it also assumes the right to change without notice or to use combinations. It is consistent only in the fact that it will not stay put, that it will not be owned by anyone. All rights are reserved.

The paper by Father Straub also questions the statement that "teaching hospitals differ from other hospitals only in opportunities." Hospital functions are generally stated as, first, the care of the sick; second, education of future personnel (physicians, nurses, dietitians, anesthetists, administrators and others); third, research or pure science. The statement that teaching hospitals differ only in opportunities was intended to mean that teaching hospitals, in common with all others, have identically these functions, and recognized their importance in the same order. The teaching hospital, by virtue of its plant, its organization, and the personnel of its staff, has the opportunity to do more and better work in the second and third common functions of hospitals than the others. The statement was intended to convey also the impression that no teaching hospital has ever placed the second or third purposes in any other position. In these hospitals the care of the sick or the welfare of the patient remains the first and primary aim and endeavor, the same as in other hospitals. The longest waiting lists in the country, especially for pay patients, are in these teaching institutions. Certainly the public is of the opinion that their welfare is best conserved in these hospitals, notwithstanding the fact that these institutions do more work under the second and third functions than the others. The statement that "the primary purpose of the teaching hospital should be didactic" is wrong in principle and quite contrary to present practice.

The fundamental principles of the "nursing care" school are well expressed in the three statements with which Father Straub closes his article. Compare those with the following as representing "medical care," and choose your school.

1. The patient enters the hospital to receive the organized and systematized medical care of the institution.

2. The hospital is responsible that the patient receive the full and proper medical care indicated with every safeguard, and is also responsible for the conservation of the public health of the community.

3. The hospital will maintain laboratories and give every aid to its staff and the physicians permitted to practice in the institution to accomplish the most effective treatment of the patient, to better the teaching done, and to aid scientific research.

Mme. Marie Curie, the discoverer of radium, will visit the United States this May, as the guest of Mrs. Wm. Brown Meloney, editor of the Delineator. Mme. Curie will make quite an extended tour in the country. A reception committee of physicians engaged especially in radium work has been appointed under the chairmanship of Dr. Francis C. Wood.

SOCIAL SERVICE REPORT SUBMITTED

The Rockefeller Foundation called a meeting in New York City in February, to receive the report of the committee of the American Hospital Association which made the study on hospital social work. The report was critically discussed from many angles, and was very well received. The general attitude toward the carrying on by the Association of the further study covering the education and training of hospital social workers was a complete agreement that this was the natural thing to be done, and the way for it to be done.

In response to the question of President Vincent as to the attitude of the Association toward the acceptance of this work, Dr. A. R. Warner, executive secretary, outlined the position of the Association in the matter. He said that all funds by the committee must be raised separately, in which undertaking the Association would expect the cooperation of the other groups represented in the raising of the funds, for the Association could not contribute to the work any more than the general overhead and administrative expense. Mr. Michael M. Davis is considering the question of raising the special funds for this survey, and making an estimate as to the probable amount needed. Dr. Warner stated that the committee must be finally named by the Association, and the report must not be made public until it has been approved by the Association's trustees, who reserve the right, as the committee will be necessarily local, to submit it for criticism to any groups, geographical or otherwise.

A meeting of the Dispensary Committee with the Dispensary Service Bureau was also held, and the problem of differentiating and correlating the work of the two bodies was discussed. The program of the Dispensary Committee for the year was mapped out. It was determined also that there should be an educational exhibit again this year, to instruct as to ideal methods of carrying on venereal disease clinics.

RED CROSS IN NEW YORK READY FOR EMERGENCIES

Several thousand trained workers, organized into a relief unit by the New York County Chapter of the Red Cross, are prepared to report for duty at any time in case of a disaster anywhere in metropolitan New York.

The unit is made up of trained nurses, ambulance drivers, canteen workers, and first aid workers. Should there be a fire of great magnitude, an explosion, a subway accident, or any similar disaster, it is equipped to handle 10,000 casualties a day.

A garage housing nineteen Red Cross ambulances is open day and night in readiness for carrying possible disaster victims to hospitals. Enormous supplies of surgical dressings, clothing, operating equipment, litters and cots lie ready for immediate transportation at the Metropolitan warehouse.

There are enough cans of meat, condensed milk, coffee, and cookies stored away in the Red Cross canteen to supply a small city. The organization's Canteen Corps is able to serve seven hundred persons with food in five minutes, and has equipment for making 600 gallons of coffee in forty minutes.

The disaster relief unit has already been called on for service several times,—the most notable being the Wall Street explosion. Twenty-five minutes after the explosion, Red Cross nurses, and a truck loaded with emergency supplies arrived on the scene of the disaster.

HOSPITAL ASKS FOR POPULAR VOTE

Vassar Brothers Hospital, Poughkeepsie, N. Y., is trying a rather novel experiment. It has sent out postcards with one part stamped and addressed for reply, asking for a popular vote on three propositions. First, should the hospital restrict its facilities, cutting its charity work in half and thus keep within its income; second, should it continue as at present until annual deficits have wiped out its funds; or, third, should it be modernized and enlarged to meet the needs of the community.

The proposed enlargement of the hospital consists of a four-story "pay" pavilion, and a three-story section to connect it to the present building. The "pay" pavilion would be 172 feet long, forty-three feet wide, and fifty-one feet high. There would be seven wards with twenty-four beds on the first floor; on the second floor, eight rooms with four connecting baths, eight single rooms, and one two-bed room; the third floor similar; and the fourth floor would be given over to the maternity department.

In the connecting section, there would be the reception rooms, the nurses' dining room, and entry room, the interns' dining room, serving rooms, diet kitchens, and departments for massage, mecano-therapy and hydrotherapy. An extension to the north would provide a clinic, a dispensary, accident room, ambulance entrance, three medical rooms, three surgical rooms, three "eye and ear" rooms, one dental room, a pharmacy, and quarters for patients received under the Workmen's Compensation Act. The extension to the south would include the kitchens, store houses, etc.

The first floor of the connecting section would house the general offices, record room, consultation room, and superintendent's office. In the rest of the building would be operating rooms, laboratories, etc. The roof would be finished off as a place for convalescent patients to take the air.

The proposed nurses' home would provide seventy-three single rooms besides the quarters for the superintendent of nurses and her assistants. On its ground floor would be a large auditorium suitable for lectures, and recreational activities.

The enlargements would be of brick with cream colored cast stone trim; they would cost approximately all the fund now at the disposal of the hospital, or about $700,000.

PLAN FIVE NEW HOSPITALS

On February 7, the House passed a bill to expend $12,000,000 in the construction of five hospitals to care for wounded soldiers in different parts of the country, and an additional $500,000 to convert into a hospital the barracks at Ft. Walla Walla, Washington, and Fort McKenzie, Wyoming. The bill authorized the Secretary of the Treasury to lease, for the state of New York, the hospital building on Creedmore Rifle Range, Long Island. This hospital, which has been provided by the New York State Legislature, will cost the state $3,000,000 and will be rented by the Federal Government for $300,000 a year. One of the new hospitals will be built in the Central Atlantic Coast States, one in the Great Lakes Region, one in the Rocky Mountain States, and one in Southern California. The Senate also has ratified this bill. It makes, however, a total appropriation of $18,000,000 available through amendments attached to the Sundry Civil Bill. One of these amendments would appropriate $12,500,000 for the five new hospitals, and the other would provide $6,100,000 for improvement or new construction on public health service hospitals.

PROGRESS IN SANATORIUM CONSTRUCTION*

By T. B. KIDNER, Institutional Secretary, National Tuberculosis Association, New York City

THE records of the National Tuberculosis Association show that poor progress was made during 1920 in the provision of sanatoriums for the tuberculous in the United States.

Twenty new institutions were opened during the year, classified as follows:

State, three; county, twelve; municipal, two; private, one; preventoria, two. One of the municipal institutions consisted of tuberculosis wards added to an existing general hospital.

The total capacity of these twenty institutions is only 1,330 beds, and inasmuch as it has been estimated that the United States is short some ninety thousand beds, this can only be regarded as a lamentably poor showing.

The estimate of the country's needs for sanatorium beds is based upon what many authorities believe to be the very conservative ratio of one bed for every annual death from tuberculosis in a community. Last year, approximately one hundred and fifty thousand persons died from tuberculosis in the United States. A count made in the summer of 1920 showed that there were in the whole country less than fifty-seven thousand beds in institutions for the care and treatment of tuberculosis

The foregoing figures do not include some institutions which have been opened for the care of tuberculous ex-service men, but it is known that the government is still short of beds for these men, and the general shortage is not reduced.

One of the new state institutions (South Carolina) is for negroes. There is a crying need for more such institutions, for in only four states are there state sanatoriums for colored people. It is understood that the State of Maryland has secured a site for a negro sanatorium, and at the moment of writing there is a bill before the Texas legislature to provide for the erection of a state sanatorium for negroes.

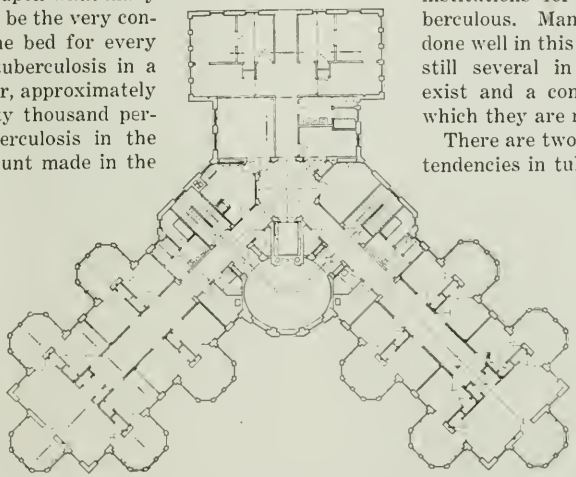


Fig. 1.—Second floor plan of the infirmary of the Nassau County Sanatorium, Long Island, N. Y.

In addition to the two preventoria for children included in the summary, special buildings for children were opened in connection with the following sanatoriums: Arroyo Sanatorium, Livermore, Cal.; National Jewish Hospital for Consumptives, Denver, Col.; Sea View Hospital, Staten Island, N. Y.

During the year, legislative or other provision was made for new sanatoriums as follows: County, four; municipal, two; private, one; preventoria, one.

In addition, appropriations for increasing the capacity of existing sanatoriums were made in six counties and one municipality during the year.

It is evident that there must be no relaxation of effort on the part of all concerned to provide more institutions for the care of the tuberculous. Many of the states have done well in this matter, but there are still several in which no facilities exist and a considerable number in which they are most meagre.

There are two or three outstanding tendencies in tuberculous sanatorium construction which are worthy of comment.

While skilled physicians have made, and continue to make, remarkable cures in the poorest possible structures, the newer institutions for the treatment of tuberculosis are very different from most of the early examples. To put it mildly, the possibility that a person ill with tuberculosis should be comfortable, was apparently not considered at all in the era of sanatorium construction which gave us that unpleasant term "shack,"—unfortunately, all too often a most appropriate one for many of the structures employed.

Today, it is everywhere realized that a patient ill with tuberculosis requires just as comfortable quarters as do patients suffering from typhoid fever, or any other acute disease. Therefore, in all recent examples of tuberculosis sanatorium construction, the accommodation provided, at least for the "infirmary" cases, differs scarcely at

*This article was intended for the March review number of THE MODERN HOSPITAL, but it arrived too late.

all from that provided for other diseases, or accidents, in a modern general hospital. The various auxiliary rooms, such as diet kitchens, utility rooms, linen rooms, etc., differ not at all. The chief point of difference is that provision must be made for open-air sleeping for most of the patients, which is done in two ways. The first way is by arranging large window spaces, which can be opened so that, in effect, the patient is sleeping out of doors while in an ordinary room. In the colder parts of the country, a little extra radiation is usually installed in such cases, so that the nurse can close the windows and turn on the steam to warm up the room quickly before a meal, or at other times. The second method is to provide porch space near each patient's room, so that the cot may be wheeled out upon it in the day time, and in fine weather, at night.

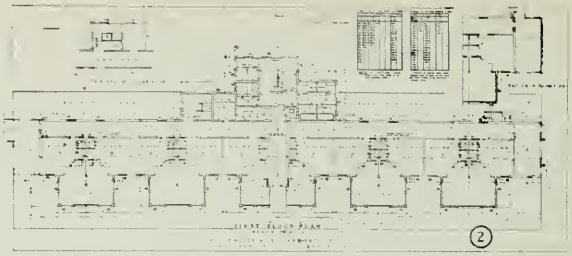


Fig. 2.—First floor plan of the pavilion for ambulant patients. Central New England Sanatorium, Rutland, Mass.

Day of Large "Open Ward" Gone

More single rooms for acutely ill patients are being provided; in fact, some authorities are in favor of single-bed rooms throughout the hospital or infirmary unit of a sanatorium. In general, however, the tendency is to provide one-bed, two-bed and four-bed wards for patients in the acute stage of tuberculosis, and it may fairly be said that the day of the large "open ward" in the infirmary unit of a sanatorium is past.

The tendency towards smaller units is not, however, confined to the buildings in which patients in the acute stage are housed. Due, possibly, to the higher standards of living and housing generally, sanatorium patients, even in public institutions, are everywhere today demanding more privacy than is afforded, especially for ambulant patients, in many institutions. (There are some notable exceptions, and, for some years past, the small unit has been the rule for patients in all stages throughout some of the leading sanatoriums in the United States.)

Theoretically, the cottage type of housing for ambulant patients is probably the best, but, in public institutions in particular, there are some objections to its adoption. Not only are the original and upkeep costs greater than in a building of the congregate type, but supervision is more difficult and troublesome, especially in large institutions in which, of necessity, the cottages are spread over a large area. The problem, then, is to provide in a congregate building, the advantages of the cottage type of housing. This has been done in several ways, but a recent example, the ambulant patients' quarters for the New England sanatorium, at Rutland, Mass., presents some novel features. As will be noted from the second illustration the patients are housed in units of two, with a porch on which the patients' cots from the two adjoining units can be wheeled out for open-air sleeping. As in the example of infirmary quarters, (Illustration No. 1) each room has a window opening directly to the outer air and sunlight. It is a simple matter to wheel a cot out from a room to porch.

The rooms can be heated to a moderate degree, so that beds and bedding can be brought in and warmed (and dried, which in many localities is necessary) with a minimum of trouble.

The addition of a diet kitchen and a nurse's utility room would render this plan quite suitable for housing semi-ambulant patients.

It will be noted that there is a "rear platform." This is a feature that a great many sanatorium authorities are now requesting and is quite often formed of concrete, at grade; being designed for use as a "north porch," on which patients can recline on cure chairs in the shade of the building in hot weather. There are few parts of the United States where such a provision would not be found useful in the height of the summer.

Tendency Toward Comfort and Privacy

To sum up what seem to the writer to be some of the outstanding tendencies in tuberculosis sanatorium construction today, greater comfort and more privacy for the patients seems to be the most marked. Cheap, flimsy construction is giving place to more substantial buildings; "shacks" of the early type, including canvas structures, are relegated to the limbo of forgotten things; canvas curtains are being replaced by proper windows and, generally, better standards for buildings and equipment are being followed.

Social features and occupational therapy are also well to the fore, and the "Community Building," where organized recreation, arts and crafts work, academic and other classes are provided, forms a feature of most of the recent plans.

MAKING THE HOSPITAL AND CLINIC RECORD SERVICE SERVICEABLE

By WILLIAM EVERETT MUSGRAVE, M.D., Division of Administration of the University of California Medical School and Hospitals, San Francisco, Cal.

Why is it that hospitals, unlike any other business undertaking, try to struggle along without any sensible, practicable system of indexing and filing? No one questions the value of such systems, but very few try to put them in operation.

One reason is that such an elaborate method is started that it can't be carried out. Also medical students are taught how to make lengthy and complex records, but not how to prepare abstracts or summaries.

Then, too, many hospitals are wavering between different disease classifications and finally give up all of them.

These things, though difficult, are not necessary, and can be overcome. Hospitals must face and solve the problem of records.

ACREDITABLE clinical record service depends upon the same elements of fixed policy, definite organization, and efficient management that are necessary to success in any other work. The board of directors of every worth while hospital should publish as part of its fixed policy that an adequate clinical record for every patient must form part of the hospital files with as much certainty as does the ledger account, and it should recognize the cost of such records as an essential item of hospital expense.

In the scheme of hospital organization, the records should be recognized as a unit or subdepartment among the other general utility services,

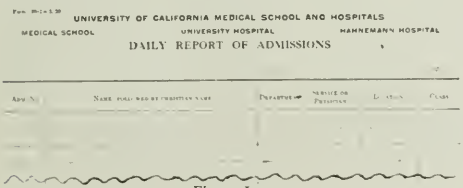

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS
MEDICAL SCHOOL UNIVERSITY HOSPITAL HAHNEMANN HOSPITAL
DAILY REPORT OF ADMISSIONS

Figure 1.

such as x-ray, laboratories, and office management. The unit should be in charge of a trained clerk, who is responsible to the superintendent or director. In good hospitals of more than one hundred and fifty beds, an efficient and useful record service will require the full time of two clerks, but in very small institutions the work may be delegated to a single clerk with other duties.

The clinical records of the average hospital usually consist of incompletely made out admission slips, filed in some indifferent manner, plus a lot of nurses' notes, rolled up and stored in a basement. Too frequently there is an elaborately outlined index system, which is not kept up, and a remarkable color and size assortment of "forms" incompletely prepared and not preserved in an accessible manner.

Why is it that so few hospitals have a sensible, practicable lot of forms; a simple index, and properly completed and filed records? Certainly there can be no question of the value of such records,—value alike to the patient and the physician. One would not think of trying to carry on any other important undertaking without records, as being necessary to refresh memory, to guide those who must follow or complete unfinished work, and as constant evidence of honesty.

There are many reasons for poor records; medical students sometimes are taught elaborate methods of "history taking" and are required to write their records out in absurd detail. They are not, as a rule, taught to prepare abstracts of records and a method of indexing and filing these abstracts or summaries, so that they may be used as a running diary of experiences for their future guidance and development. Many hospitals have no working system for preparation and indexing, and others have a hopelessly complex system which is rarely carried out.

Most important of all, many hospitals are in a constant state of indecision between so-called "Systems of Classifications of Diseases." They may attempt to put one into force and fail be-

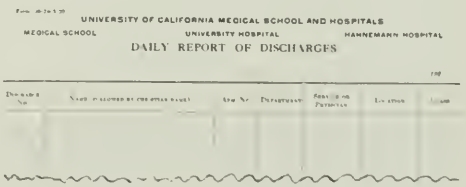
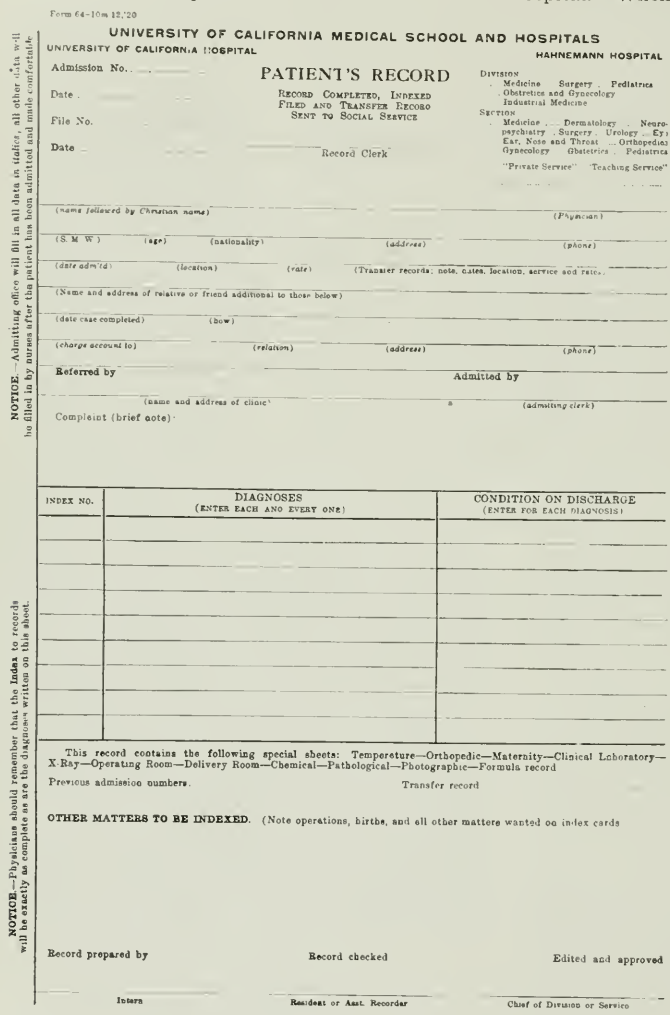

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS
MEDICAL SCHOOL UNIVERSITY HOSPITAL HAHNEMANN HOSPITAL
DAILY REPORT OF DISCHARGES

Figure 2.

cause of the "ifs," "ands," and "buts," that hopelessly involve most of these "systems," or else the expense becomes so great that the record work is given up entirely.

None of these things is necessary, and a useful

clinical record system can be so simplified that it ought to be a pleasure to physicians of the staff to prepare the records, and a routine duty and expense of the hospital to index and file them.



Form 64-10m 12,'20

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

UNIVERSITY OF CALIFORNIA HOSPITAL — HAHNEMANN HOSPITAL

Admission No. ____ PATIENT'S RECORD

Date ____ Record Completed, Indexed Filed and Transfer Record Sent to Social Service

File No. ____

Date ____ Record Clerk

Division: Medicine Surgery Pediatrics Obstetrics and Gynecology Industrial Medicine

Section: Medicine Dermatology Neuropsychiatry Surgery Urology Eye Ear, Nose and Throat Orthopedics Gynecology Obstetrics Pediatrics

"Private Service" "Teaching Service"

(name followed by Christian name) (Physician)

(S. M. W.) (age) (nationality) (address) (phone)

(date adm'd) (location) (rate) (Transfer records, note, dates, location, service and rate.)

(Name and address of relative or friend additional to those below)

(date case completed) (how)

(charge account to) (relation) (address) (phone)

Referred by Admitted by

(name and address of clinic) (admitting clerk)

Complaint (brief note)

NOTICE.—Admitting office will fill in all data in italics, all other data will be filled in by nurses after the patient has been admitted and made comfortable

INDEX NO.	DIAGNOSES (ENTER EACH AND EVERY ONE)	CONDITION ON DISCHARGE (ENTER FOR EACH DIAGNOSIS)

This record contains the following special sheets: Temperature—Orthopedic—Maternity—Clinical Laboratory—X-Ray—Operating Room—Delivery Room—Chemical—Pathological—Photographic—Formula record

Previous admission numbers. Transfer record

OTHER MATTERS TO BE INDEXED. (Note operations, births, and all other matters wanted on index cards

NOTICE—Physician should remember that the Index to records will be exactly as complete as are the diagnoses written on this sheet.

Record prepared by Record checked Edited and approved

Intern Resident or Asst. Recordar Chief of Division or Service

Figure 3.

The important requirements of a simple, efficient, useful record system are: identification, admission, preparation of records, indexing, filing, and transfer records.

Names, of course, should be carefully and accurately written. A name index prepared as patients are admitted must form a part of the office or business records. A similar index must form part of the clinical record system. Admissions should be serially numbered from one up, and the series never should be changed or broken. These numbers should show on the name index cards and upon all records while the patient is in the hospital. When the patient leaves, the clinical record system adds its permanent serial number to all indexes and records. The admission, or suspense, series of numbers, and those of the permanent record are linked together as shown (Figs. 1 and 2) on a daily admission and discharge slip, which is kept as a loose leaf record and bound as often as necessary. Sometimes the two numbers are expressed as a fraction, the admission number becoming the numerator and the permanent number the denominator. There are many reasons for having two separate, but linked, series of numbers. The only ones that will be mentioned here are, that it allows completed records to be kept up to date in indexing and filing. It does not hold up hundreds of records because some chronic patient has been six months in the hospital. It enables hospitals to give statistical facts monthly, or as desired, upon completed work, and does away with all the nonsense of "admitted," "discharged," "remaining at end of period," etc., that formerly wasted a lot of good paper and time.

The most important part of a patients' record system should be the admission sheet, and this sheet should form the first page of the clinical record. A carbon copy may very well form the foundation of office records as well. A good form for this purpose is shown in Fig. 3. In order not to delay or embarrass patients at the admission desk, only the necessary data, as shown in italicized headings, is filled out before the patient is assigned space. The nurse completes the identification and social data at her convenience after the patient is comfortable, and the physician writes in his diagnoses as they are made. No patient should be discharged until the diagnosis has been written in and signed by the physician.

For reasons obvious to hospital men, the list of patients' clothing and effects and the various receipts therefor are kept on the back of the same sheet, Fig. 4. The nurse is responsible for this record.

If this and all other forms are made of standard eight and one-half by eleven inch size and bound in pads of 100, it is quite a simple matter to have an eight by five inch card under the top half of the admission record, and thus secure an accurate carbon office record with but a single writing of the patients' name.

The original copy of this first sheet should follow the patient throughout his stay in the hospital. It will contain writing, good, and bad, by physicians, nurses, and clerks. It contains the admission or suspense number, and on the back it is a receipt for clothing and effects received and returned by the hospital. For these and other reasons, when the patient leaves and the signed record is turned in to the clinical record office, this first sheet should be typewritten and the permanent discharge number added to both the original and the clean copies. The physician should sign the new, clean copy and the original should then go to the business office, to be filed permanently in chronological order in accordance with the permanent numbers.

The eight by five inch card carbon copy of the top half of the admission sheet, made at the time of admission, should be retained in the admitting office permanently. During the patient's stay in the hospital these records may be filed alphabetically by name in a card index drawer, or in larger hospitals they may be fitted into a rapid reference file. These cards may be used for general information and for notations about visitors, telephone numbers, calling of relatives, and other matters to be given to the public, or that may be required for the information and admitting offices. When the case has been completed, these cards should be filed alphabetically for future reference.

Possibly other clinical record forms are necessary. Such forms are almost infinite in size, color schemes, and combinations of spacing, calculated to make work easy and thinking unnecessary, but usually they accomplish neither end. Considered from the standpoint of usefulness of records and the training of the minds of medical students, the more nearly the other "forms" approach the standard sized sheets of plain white paper, the

PATIENT'S VALUABLES, CLOTHING AND OTHER EFFECTS

1. The University of California Medical School and Hospitals hereby acknowledges receipt of the following list of clothing and effects from the patient mentioned on the reverse side of this sheet.

2. The patient has been instructed about the deposit of money and valuables in the vaults in the office.

Articles	Number	Description or Remarks
Hat Cap		
Fur Muffler		
Coat Overcoat Trousers Vest		
Sweater		
Gloves Collar Tie		
Belt Garters		
Dress Waist Skirt		
Shirt waist		
Shirt		
Shoes Pumps Rubbers		
Corset		
Combination Corset cover		
Union suit Drawers Undershirt		
Stockings Socks		
Petticoat		
Umbrella Cane Crutch		
Negligee Night gown Slippers		
Suit case Bag Trunk		

Date ..... Student Nurse on duty ..... Supervising Nurse

..... , 192

I hereby acknowledge return to me of the above listed clothing and effects.

..... Patient or relative

The Supervisor in charge of the department (the Special Nurse if there be one) is charged with full responsibility regarding patient's effects.

Figure 4.

better the finished record, particularly if editorial supervision is practiced and the finished product typed. Special "forms" for laboratory, x-ray, and other similar departments are quite generally used, and will be considered in other articles dealing with these departments. A good policy is to keep all special forms reduced as much as possible in variety; insist upon uniformity in size and assure their prompt assembling as parts of the clinical record, retaining only an identifying card index as departmental records. An astonishing number of hospitals leave their clinical records so scattered that one must go to the laboratory, x-ray department, office, and often to other places to find important portions of clinical records that ought to be kept assembled in the wards during the patient's stay, and permanently filed together after the patient has gone.

A good record is a readable, logical expression of the essential evidence, tests, reasoning, and research, upon which is based a summary and diagnosis. This should constitute the first part of the complete record. It is impossible to prepare a record of this kind by filling blank forms, and it is doubtful if the method tends to develop the very qualities which make for accuracy in practical work, progress in investigation or success in

Anemia, secondary 30—42—101—243—342
384—453—577—630—681—770—802—843—1134
1217—X101—1594—1601—1720—1760—1772—1838
1856—1863—1928—2000—2030—2201—2303—2344
2355—2377—2399—3400

Figure 5.

after life. Progress notes, if they consist in statements of facts and logical interpretation, are very much worth while, but as seen in most hospitals, they do not add to the value of the record, the betterment of the patient, nor to the present or future usefulness of the physician.

Indexing

An index, whether of clinical records, of a hospital, correspondence files, a book, or any other activity, should be designed to locate records or facts in the quickest way and with the least amount of effort. From this standpoint, they are all very similar, and the best methods are a matter of clerical understanding in all forms of business. There is a name and a subject index. Name indexes should be prepared with scrupulous care, particularly as to spelling, and they should be filed alphabetically forever. In addition to the name, the card may carry such other permanent data as is desired, and it should have all record numbers of whatever character added as new data accumulates. The subject index should be prepared and filed exactly as the name index. Each and every diagnosis is a subject for indexing purposes. If the clinical record is prepared with a minimum of completeness, there will be few, if any, patients with a single diagnosis; most of them will have from three to five pathological conditions recorded. In one large teaching hospital, tabulation of ten thousand records chosen at random from the files showed an average of four diagnoses per patient. By indexing each and every diagnosis, regardless of whether it is a so-called "primary," "secondary," "complicating," or "sequelae" condition, and regardless of sex, age, anatomical location or what not, it always is possible to find any record at a moment's notice, and it is easy to assemble all the records pertaining to any given diagnosis with equal facility. Like all subject indexes, a disease index must use cross reference cards freely and in the same general way that they are used to index correspondence or other matters. One difficult problem in this connection is in the multiplicity of names for the same or similar diseases or conditions. This difficulty is easily overcome by using any one of the names for the actual index and inserting all others as cross reference cards. It is immaterial which one of the variety of names is used for the index, and it is equally immaterial how many cross reference cards are employed. Another difficulty in preparing disease indexes is due to the extensive practice of entering symptoms as diagnoses. Of course, symptom complexes may be indexed as easily as real diagnoses, but in so doing the index becomes unwieldy in size and much diminished in value, because when the physician asks for a record he is likely to inquire by disease, and will have forgotten that his original diagnosis was entered under one of the thousands of names of symptom complexes.

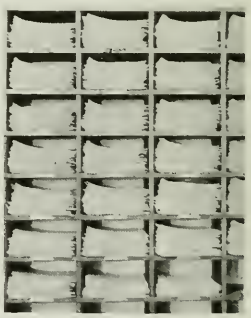


Figure 6.

It has been realized for a long time that the ultimate solution of both of these major problems lies in having as a guide a satisfactory published index of diseases. Many such have been published and a considerable number are in use. Almost every person who has had extensive experience in the work has invented one or several so-called systems, only to discard them with more

mature experience and judgment.

By far the most practical and useful of all the published indexes of diseases is the Standard Nomenclature of Diseases and Pathological Conditions, Injuries and Poisonings, published by the Department of Commerce, Bureau of Census, of the United States Government. This new index and classification is in the first edition, and contains a number of errors, as well as omitting to cover some essentials. However, in spite of these errors of detail, the book represents the subject well and ought to come into general use.

The cross reference plan of this book is well balanced and fairly complete. Like all other works of this character, a number is given to each recognized diagnosis. This has its value both for statistical work and as a training to students and interns, as well as physicians, in accuracy in diagnosis. Particularly is this true if the person making and signing the diagnosis is required to write the appropriate classification number after each diagnosis.

When anything like accuracy is assured in diagnosis by any standard plan, subject or disease indexing becomes easy clerical work and statistics of any character simply additions of numbers. By grouping all case numbers of any one diagnosis upon one card, as shown in Fig. 5, it is easy to assemble all the records and to make such study of them as is desired. If the permanent discharge serial numbers are placed in sequence upon these cards, the numbers indicate the dates to years and months, and any kind of desired total is easily secured.

Of course, subsidiary indexes may be attached to the above in unlimited number and variety. They may include age, sex, anatomical location, and all the other frills of a traveling census bureau. However, the more elaborate the changes introduced, the more expensive and less useful the index becomes, and the greater the disaster when it is necessary to change personnel in the office.

UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL HOSPITALS

TRANSFER RECORD BETWEEN OUT-PATIENT DEPARTMENTS AND HOSPITALS

Name Age Sex O. P. D. No.

Residence Phone Admission No.

Transferred from (Hospital or Clinic) Dept. or Service Date

Transferred to (Hospital or Clinic) Dept. or Service Date

(Physician's Signature)

Clinical summary

Operations and special procedures

Course of illness and sequellae

Condition at discharge

Laboratory findings

X-ray findings

Follow up work advised

a. Economic

b. Social

c. Educational

d. Medical

Remarks (O. P. D. enter diagnosis and all suggestions here)

For transfer from clinic to hospital: This report is to be made out by the physicians referring the patient into the hospital and is to be attached to the Social Service Admission card and sent to the hospital office, where it is sent to the ward with the Admitting Front Sheet. At the close of the case it will be completed and turned in to the Clinical Record Office with the other records.

For transfer from hospital to clinic: This report to be made out by the resident or intern, signed and turned in to the Clinical Record Office with the other records in every service case, from where it will be sent to the Clinic.

Figure 7.

Filing

There is only one way to file disease index cards and that is alphabetically, without any splitting into subjects, departments, or in any other way. In large hospitals, the volume of cards may eventually become too great for fast work, in which case the entire index may be published and a new card system started. In a general hospital of 250 beds, it may be found economical and useful to publish the index about every ten years, and more often in larger plants. In smaller hospitals, or even larger ones dealing with patients who stay a long time, it rarely ever will be necessary or advisable to publish it.

As with indexing, the simpler a filing system, the more useful and accessible it is. Too many hospitals attempt to separate their filing by de-

partments or services, so that if one wishes to look up a given patient's record, part of it will be found in medical department files, part in surgery, some in pathology, x-ray, and what not. The matter quite frequently is still further complicated by a separate series of numbers for each department. Again, there is variety in binding, from individual records to large volumes, and in both cases quite frequently the binding also is by departments or services.

Undoubtedly, binding by individual record, and filing consecutively by serial number, regardless of department, service, etc., makes for simplicity, economy, and efficiency.

No patient should be considered discharged from the hospital until all parts of the record have been completed, assembled, and signed.

An ordinary plain Manila folder makes an entirely satisfactory binding for the record. The problem of permanently fastening the record in the folder may be solved in several ways: a large "split key" passed through punched holes will do; the new "U-File-M" binder system now on the market is little if any more expensive and much better. In fact, for smaller hospitals, this is a practical method of binding. For larger and more pretentious plants a binding machine which stitches the record into the folder gives the very best results. There are machines for the purpose on the market, and they may be operated as part of the linen department of the hospital. The individually bound records may be filed consecutively in accordance with the discharge serial numbers mentioned above in any of the standard filing systems. A much cheaper and even better method is to use pigeonholes of the right dimensions to hold about fifty records each. See Fig. 6.

Transfer Records

When physical space and other conditions will permit, all hospital, out-patient, departmental, visiting, and all other records pertaining in any way to the patient should be combined into a single record system available alike to all departments. Frequently, for one reason or another, this is not feasible and some sort of connecting bridge must be made. Some form of transfer record best meets this situation. The one used in the University of California hospitals is shown in Fig. 7. All patients in service departments of the hospital are admitted with this record, which goes to the ward with other admission data, and stays permanently as part of the hospital clinical record. Similarly, when any clinic patient is discharged from the hospital, this completed record forms a part of the discharge machinery and is sent from the central record office to the out-patient record files, where it remains a permanent part of the records of that department, whether or not the patient ever returns for further advice.

PLAN MEMORIAL TO GENERAL GORGAS

As a recognition of the achievements of the late General W. C. Gorgas and also as a memorial to him, Dr. Belisario Porras, president of the Republic of Panama, has suggested the establishment of an institute on tropical and preventive medicine in connection with the Santo Tomas Hospital at Panama. The plan is that, until a permanent building can be erected, the institute shall comprise a well organized laboratory for research within the hospital. As it is the desire of President Porras that this should be a memorial from the Republic of Panama to the memory of General Gorgas, the government of Panama will finance the project. Although the work of the institute will be mainly in the interests of Central and South America it is hoped it will also have an international scope and that it will have the active cooperation of leaders in tropical and preventive medicine. At a meeting held January 31 in Washington, a provisional board of directors for the United States, including Admiral Wm. C. Braisted, M. C., United States Navy, chairman; Dr. Leo S. Rowe, director of the Pan-American Union; Surgeon Generals Ireland, Stitt, and Cumming of the Army, Navy, and Public Health Service, respectively; Honorable J. E. Lefevre, chargé d'affaires of the Republic of Panama in Washington; and Honorable John Basset Moore, legal representative. A similar board will be named to represent the countries of Central and South America.

NEW YORK COMMITTEE ON TUBERCULOSIS MEETS

The New York State Committee on Tuberculosis and Public Health held a conference at New York City on January 22. This is the first meeting of the committee since it was reorganized in February, 1920, and its name changed from the Committee on the Prevention of Tuberculosis to the present title. This change seemed advisable as there has been an increasing interest in public health matters on the part of the Committee, and it has been found to be more practical if the local organizations work along general health lines. The various factors in the program of the work were considered at the conference in the light of the experience gained during and since the war. The program included talks on legislation, occupational therapy, dispensaries, enlarging and inspection of hospitals, visiting nurse service and other related subjects.

DISAPPROVE OF UNIONIZATION

In the report of the committee on nursing of the American Medico-Psychological Association, it is stated that of all the superintendents who were interrogated on the question of the unionization of hospital employees, and their affiliation with the American Federation of Labor, only one was found to be in favor of the movement. Most of the replies vigorously opposed the idea, and offered the opinion that it could not be too strongly resisted. It was felt that the unionization of the employees would take their loyalty from the state and transfer it to the union, thus being detrimental to the state; that it would lower the standard of service, which would be detrimental to the employee; and it would decrease the value of the service given to the patient in that the superintendent would be subservient to the union whose members were less skilled in medical matters than he.

THE EFFECT OF THE EIGHT HOUR DAY ON THE HOSPITAL BUDGET

By R. G. BRODRICK, M.D., Director of Hospitals, Alameda County Hospital, San Leandro, Cal.

THE length of the working day is the most important factor in regulating efficiency among hospital employees. When long hours of labor are imposed upon them the amount of work done hourly is diminished. This is largely an unconscious process. It is obvious that there is a limit to the number of hours in a working day, and that its proper length is really a question of human endurance; therefore, it is not economical to make the working day so long or so strenuous as to diminish the amount of work performed on following days, thereby reducing efficiency. We know that shorter hours in industries increase the amount of work, while improving its quality, and there is no reason to assume that the staying power in the hospital employee is any greater than among workers in other fields.

Hospital Employees Overworked

Hospital employees have been, until recently, habitually overworked. That hospitals are eleemosynary institutions furnishes no excuse for imposing inordinately heavy working conditions on employees. If they cannot, with their present scale of income and expenditure, afford to increase the number of their employees so as to lessen arduous working conditions, they should increase their rates, apply to the public for larger donations, or if need be, lessen some of their activities. Philanthropists have no right to impose hardships on one portion of the community while healing the ills of another.

The relation of fatigue to accidents and mistakes has been well established. The attention flags, there is difficulty in concentrating thought, and the result is that errors and accidents often occur, especially in nursing where concentrated attention and alertness are so necessary.

It is important to eliminate all unnecessary fatigue and to insure that the employee is not exhausted by the day's work beyond the point where he or she can recuperate completely during a night's rest. Much work can be so arranged that it may be done in the sitting posture; when long periods of standing become necessary employees should be advised regarding the importance of proper shoes. Rest periods should be provided. Night duty should not last longer than one month at a time, because the day sleep is likely to be curtailed and fatigue produced.

Hospital employees have, until recently, been poorly paid, which accounts in great measure for the difficulty in obtaining and holding the right kind of help. The idea that a worker should accept a lower compensation because the hospital is rendering a service to humanity is not logical.

Employment problems in hospitals are basically the same as in other enterprises. To attract high-class helpers by means of adequate salaries and good living conditions is a wise expenditure. They will create an *esprit de corps* in the institution which will be worth the increased cost.

Effect on the Budget

The effect of the eight hour day on the hospital budget is extremely difficult to analyze at the present time. Since 1916, due chiefly to the high cost of living, wages have increased from 40 to 100 per cent.

In estimating the number of employees necessary for adopting the eight hour day, many things such as the hospital plan, the class of patients, and arrangement of wards and other departments, must be considered. In general, large ward-units require relatively fewer employees than those furnishing greater privacy to patients. With the exception of the nursing department, which represents about one-half of the total number of employees, the eight hour day may be adopted with but slight additional help. This applies to the administrative offices, housekeeping, culinary and laundry departments. The hours of the administrative force, as well as laundry workers, and such mechanics as carpenters, painters, plumbers, etc., would be continuous from 8 a. m. to 5 p. m. with one hour for lunch.

The kitchen force, including cooks and helpers, work eight hours in broken shifts. Waitresses and diet kitchen maids readily perform the same amount of work as formerly, in broken shifts as, for example, 6:30 a. m. to 9:30 a. m., 10:30 a. m. to 1:30 p. m. and 5:30 p. m. to 6:30 p. m.

Domestic, such as porters and chambermaids, usually serve in two split shifts from 6:30 a. m. to 12:30 p. m. and from 3:30 p. m. to 5:30 p. m. Employees standing watch, such as engineers, firemen, ambulance drivers, and attendants, attached to emergency departments, will have to be increased to permit of three straight shifts of eight hours each.

In adopting the eight hour plan for nurses care should be used to have the shifts overlap so that

there will always be someone on duty who knows what has been done in the case of each patient. The chief expense will be the additional number of nurses needed; it will be double the usual number employed at night.

Day nurses usually report on duty at 7 a. m., and serve until 7 p. m., being allowed half an hour for luncheon and dinner, and three hours off. Day shifts are irregular, nurses being allowed their hours as the demands of the ward will permit. In order that each nurse may enjoy her half day once a week, as well as extra hours on Sunday, it is necessary for her to work a straight shift of eleven hours on two days each week.

Night nurses usually operate in two shifts, the first being from 3 p. m. to 11 p. m.; the second from 11 p. m. to 7 a. m.

Student nurses are generally overworked. The hours of duty are too long, injurious to health and to good standards of work. They reduce the nurse to such a condition of fatigue that she is unable to profit by the instruction for which she gives her service. The latest survey of training schools for nurses made by the Bureau of Education, Department of the Interior, contains a vast amount of important information for hospital superintendents. Of the total number of training schools, estimated at 1,776, it is interesting to note that one hundred and twelve schools, or about 6 per cent, require twelve hours duty of their pupils; 689 schools ten hours; 434 schools nine hours, and but 232 schools eight hours.

Indications of the decreasing percentage of pupil nurses who complete the course are shown by the fact that, from 1894 to 1898, 35 per cent of all pupils enrolled were graduated, while from 1914 to 1918 only 24.7 per cent finished the course. This report shows clearly the defects of the present system of training nurses, resulting in the constantly lessened number of students. With other occupations offering easier conditions of work it is not surprising that many who are deeply interested in nursing should decide against assuming the sacrifices which this splendid profession at present requires.

The advantages of the shorter day have been demonstrated no less clearly than the deterioration due to long hours.

Employees enjoy better health and have opportunities for necessary home-life, education, and needed recreation.

Especially for the kind of work nurses perform eight hours is quite long enough. They are required to be alert, kindly, and cheerful, while often witnessing distressing scenes involving severe mental strain.

The hospital is benefited by receiving better service from contented and healthy workers who have the spirit to do that which promotes efficiency.

STERILIZATION AND WASHING IN THE HOSPITAL LAUNDRY*

By WALTER TRIMBLE, Chicago, Illinois.

THE disinfection and sterilization of goods in the hospital is a very important subject, and one to be approached very cautiously by the layman. The laundry superintendent, not being a scientist, should rely on the medical staff for specific instructions, if they depend on the laundry processes to kill germs. For this reason, I think it best merely to tell what is being done in a few representative cases, making no recommendations and leaving the matter, like many others, for the medical corps to decide.

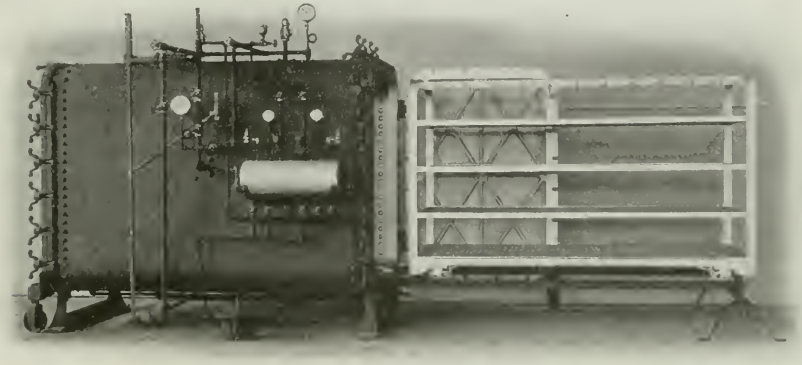
It is obvious that goods from contagious cases must be sterilized before they enter the laundry, for the protection of the workers. The common practice seems to be to do this in the hospital, by means of an apparatus which some call a "disinfector," others a "sterilizer." This is a closed receptacle which is heated, by means of steam in a jacket, to a high temperature. The high temperature is not always relied on to kill the germs, and to be absolutely sure of their destruction, formaldehyd gas is sometimes injected into the receptacle. The two ends of this apparatus open into different rooms so that the infected articles are put into the machine, are sterilized, and come out into the other room, ready to go to the laundry.

What it is safe to send to the laundry without being disinfected is a matter which the medical corps must determine, and of course the laundry workers should be given the benefit of every doubt. If any articles with infectious, but noncontagious, germs are sent to the hospital laundry, they should be so marked, in order that the workers may take such precautions as may be

*This is the fifth of a series of articles by Mr. Trimble on "The Hospital Laundry." The first four appeared in the November and December, 1920, and the January and February, 1921, issues of THE MODERN HOSPITAL.

necessary, both for their own protection and for the sterilization of the goods.

Another type of machine for disinfecting goods, either from a contagious ward or from any other, receives the goods in one room, washes and disinfects the load, and discharges it into the laundry's washroom, ready to be extracted and finished. As this is, strictly speaking, a laundry machine, and as it stands in the laundry's washroom, it is of more interest to the laundry superintendent than the sterilizer just described. One of these machines is built to stand a steam pressure of seventy-five pounds, which gives it a temperature of 320 degrees F., and this is called a "high-pressure sterilizer." Another machine, called a "low-pressure sterilizer," allows a pressure of twenty-five pounds, which gives a temperature of 267 degrees F. The doors of these machines clamp down tightly, so that steam will not escape.



STEAM AND FORMALDEHYDE DISINFECTOR

This apparatus projects through a partition, and the goods, being placed in the rack at one end, come out in the other room, disinfected. Then the articles go to the washroom of the hospital laundry.

After the infected articles are put into this machine, the doors are clamped down and the load is given what is called a "breakdown," to remove the albuminous matter, which heat would coagulate and make difficult to remove. This is merely a bath of lukewarm water and soda, and it is run a short time and then discharged. Then steam is admitted to the machine, and a high temperature is reached, which in due time extinguishes all germ life. After this, the usual suds and rinse baths follow, with bleaching and bluing, if so desired.

Where this system is used, the laundry workers are at no time in danger of becoming infected from anything which may be in the fabrics. However, as these machines are very expensive, every hospital cannot have one of them.

As has been pointed out, all goods from contagious cases must be disinfected before the articles go to the laundry but if the infection is of a noncontagious nature, all danger from the latter source may easily be avoided by the laundry workers. In case the hospital has not special apparatus, contagiously infected articles may be disinfected by putting them into a bath of some suitable germicide, or, much better, by boiling them. I say that boiling is best, because any chemical combination which is corrosive enough to kill the germs is apt to be of a nature which will do damage to the fiber of the fabrics.

Should any goods which are infected with germs of other than contagious diseases be sent to the hospital's laundry? This is a question for the doctors to answer in each specific case. It seems to be the general practice to send all goods, except the articles from the contagious cases, and some surgical cases, direct to the laundry department, "and let Nature take its course." And it appears that Nature has made some wise provision whereby laundry workers are immune, for they never seem to contract diseases from the goods which they handle. Even during the deadly epidemics of influenza, the workers in the commercial laundries seemed, as a class, to be immune, for they handled tons and tons of fabrics which, in spite of precautions, came to the laundries from families which had one or more cases of the "flu" in their midst.

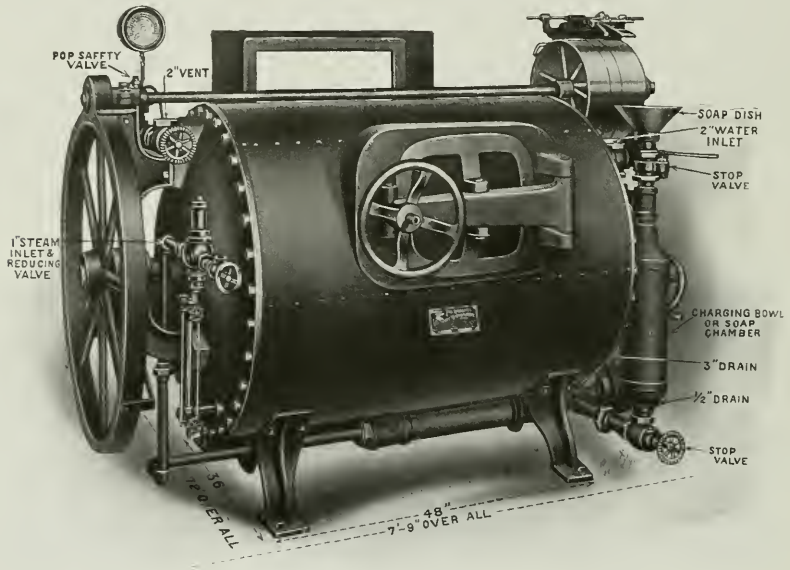
Overdoing of the Sterilizing

Sterilizing, like most other good things, may be overdone. A germ cannot be "deader than dead," although some take precautions which would kill the germ three or four times in succession, had it, like the mythical cat, several lives. If we can get the infected goods into the modern

washing machine, we can, without the use of excessively high temperatures, and without the use of corrosive solutions, exterminate the germs, "all and sundry," as the lawyers say. High temperatures, in the case of either cotton or woolen goods, are very objectionable from an economic standpoint, because they shorten the life of the fabrics.

Bacterium diphtheriae	140	F. maintained	10 minutes
Bacterium mallei (glanders)	140	F. maintained	10 minutes
Bacterium influenzae	140	F. maintained	5 minutes
Bacterium tuberculosis	140	F. maintained	20 minutes
Bacillus typhosus	136.4-140	F. maintained	10 minutes
Bacillus coli	140	F. maintained	5-15 minutes
Spirillum cholerae	140	F. maintained	10 minutes

Under laboratory conditions, therefore, 140 degrees F.



A HIGH PRESSURE STERILIZER
This machine is built to stand seventy-five pounds of steam pressure, which gives a temperature of 320° F. The goods pass into it from one room, and, after the load is washed, they come out in another room.

As an evidence that it is not necessary to subject most of the goods even to a temperature of 212 degrees F., or boiling point, I will quote from "A Government Report on Laundry Machinery; Its Adaptability to Various Requirements of Disinfection and Disinsection." This report was prepared for the guidance of the military authorities, by the following eminent scientists: W. D. Pierce, Ph.D., Bureau of Entomology; R. H. Hutchison, M.S., Bureau of Entomology; A. Moscowitz, B.Sc., second lieutenant, Q. M. C., United States Army. Under the heading, "Bactericidal Value of the Wash Wheel" (meaning the ordinary laundry washing machine), the report says:

Dr. G. F. White has compiled for us the following data on the effects of temperature on bacteria.

The approximate thermal death point of representative pathogenic non-spore-bearing bacteria is as follows:

Streptococcus	131	F. maintained	10 minutes
Micrococcus	140	F. maintained	10 minutes

(60 degrees C.) maintained for twenty minutes, is sufficient to destroy all of the foregoing species. What is true for them is true for most, if not all, of the non-spore-bearing pathogenic forms. Tests are usually made with the organisms in bouillon or normal salt solution. For practical purposes it may be considered that in water the thermal death point would be the same as recorded in the list.

The amount of heating necessary to destroy the non-spore-bearing pathogenic species in milk may be stated as follows: 140 degrees F. for thirty minutes; 149 degrees F. for twenty minutes; or 158 degrees F. for five minutes. Either may be used in pasteurization, and the fact gives some information of value in your laundry problem.

Protozoa are destroyed with approximately an equal amount of heating. Data are rather scarce. Encysted amebae have withstood 140 degrees F. for one hour, but are usually destroyed. Nosema apis in the spore form is destroyed at 136.4 degrees F. for ten minutes.

In the filterable viruses, destruction is accomplished by approximately the same amount of heating as in the bacteria. Yellow fever virus succumbs at 131 degrees F. in five minutes; rabies virus at 140 degrees F. in one hour; foot and mouth disease virus at 140 degrees F. in

ten minutes; sacbrood virus at 139 degrees F. in ten minutes.

The spore-bearing bacteria require the boiling temperature for variable periods, varying from being brought to the boiling point to twenty minutes, a half hour, and sometimes even longer.

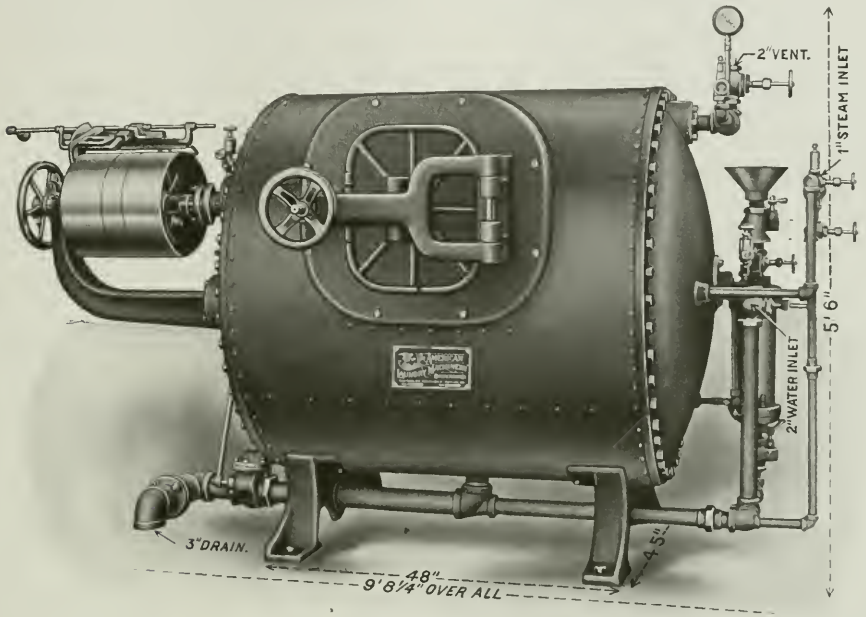
Variations in the thermal death point are to be expected, and do occur, in which the resistance to heating is considerably increased above that indicated by the above figures. In practical work generally, there are not considered.

As a working basis, therefore, in your laundry problem, a temperature of from 140 degrees F. to 158 degrees F. maintained for twenty minutes would be amply sufficient to destroy all pathogenic non-spore-bearing forms. It should be added that the vessel should be a closed one. The degree of temperature and time actually required would depend somewhat upon the care with which the work was done.

In this connection it may be well to state that it is perhaps best to wash woolens at a lower temperature, and after extracting them subject them to these higher temperatures in the drying tumbler, the result of this being the same. It should not be necessary to state that accurate thermometers should be used to vertify the temperatures, and that guesswork should not be relied on under any circumstances.

A temperature of 180 degrees, it is stated by competent authorities, will not damage cotton or linen fabrics, and there are some who claim that with proper handling this temperature will not cause woolens to shrink. However, if a lower temperature will sterilize the goods, it would seem foolish to use the higher one.

A great many washing machines with wooden shells and cylinders are still in use in hospital laundries, and this forms another basis for objection to unnecessarily high temperatures. This is because the steam and boiling water disintegrates or "pulps" the wood, making renewals of shells and cylinders necessary. Another argument for lower temperatures which is worth considering in these days of the high price of fuel, is the fact that their use will save steam. As the plan, if successful, will save money in three ways, it seems to be worth a try-out. The bacteriologist and microscopist can check up the work, so no chances need be taken.



A LOW PRESSURE STERILIZER

This machine is built to stand twenty-five pounds of steam pressure, which gives a temperature of 297° F. As in the case of the high pressure sterilizer, the goods pass from one room to the other, going through the machine, and being washed in it.

The *Urologic and Cutaneous Review* states that it is not surprising that when radium was first discovered over-optimistic claims for its powers should have been made. Radium in smaller and larger amounts has been made available to all of the important cancer research centers in this country, and a greater knowledge of its use as well as of its limitations has resulted. There has been in the last six years a steady progress in its use and application.

MATERIALS FOR WARD FLOORS

By HENRY C. WRIGHT, Trustee of Bellevue and Allied Hospitals, Director of the Hospital and Institutional Bureau of Consultation, New York City.

IT IS the general feeling that a ward floor satisfactory from all standpoints has not been devised. All materials thus far used are a compromise in one way or another.

Bellevue hospital, New York City, which like many other hospitals has tried all kinds of floors and has found none entirely satisfactory, in contemplating the erection of some new buildings to contain many new wards, determined to secure, so far as possible, the experience of some of the leading superintendents in this country and Canada on ward floors.

The writer was delegated by the trustees to formulate a letter of inquiry and to tabulate results. This inquiry was sent out in July, 1919, and the replies received served as a basis on which the trustees reached their determination. The summary of these replies forms the basis of this article.

The inquiry sent out, among other things, made the following request:

"We shall consider it a special favor if you will give your experience in connection with one or more of the floorings hereafter listed, stating wherein they have proved by actual use satisfactory or unsatisfactory. If a particular type has in the main been serviceable, please state what modifications you would make if reconstructing. In giving your judgment, we assume you will take into consideration the (a) sanitary condition; (b) durability; (c) cost of upkeep; (d) cost of daily care; (e) effect on nurses' feet; (f) noiselessness; (g) warmth.

"*Types of floors.*

1. Tile.
2. Mosaic-tile.
3. Mosaic-marble.
4. Terrazzo.
5. Cement.
6. Magnesia composition.
7. Rubber tile.
8. Compressed cork.
9. Cork composition tile.
10. Linoleum (entire floor).
11. Wood linoleum (entire floor)."

The inquiry in addition asked for experience with regard to the use of linoleum runner through the ward, and also asked the superintendents to list types of floors in order of preference based on their experience of use.

It will be particularly noted that the inquiry requested, not the opinion of the superintendents with regard to floors, but their actual experience. This limited many superintendents of extended experience to a statement upon but one type of floor, since their experience had been in but one hospital. On the other hand, some superintendents made reply who had rendered service in a number of hospitals, and had had broad experience with various types of flooring in these different hospitals.

The inquiry was sent to thirty-one superintendents, and replies were received from nineteen. These nineteen replies are, in the main, from superintendents of leading hospitals in the United States and Canada. Replies were received from the following: Johns Hopkins, Baltimore; Peter Bent Brigham, Boston; Massachusetts General, Boston; Mount Sinai, New York City; New York Hospital, New York City; Presbyterian Hospital, New York City; St. Luke's Hospital, New York City; Rockefeller Institute Hospital, New York City; Woman's Hospital, New York City; Brooklyn Hospital, New York City; Michael Reese Hospital, Chicago, Ill.; Buffalo General Hospital, Buffalo, N. Y.; Binghamton City Hospital, Binghamton, N. Y.; Barnes Hospital, St. Louis, Mo.; Alameda County Hospital, San Leandro, Cal.; University of California Hospitals, San Francisco; Latter Day Saints Hospital, Salt Lake City, Utah; Royal Victoria Hospital, Montreal, Canada; Miss Clara Noyes, formerly general superintendent of nurses, Bellevue Hospitals.

Replies Show Choice of Flooring

It is unfortunate that the limitation of space will not permit the publication of most of these letters, inasmuch as they record the result of extended experience with regard not only to the types of floors listed, but also to the various defects of the different types, and under what conditions defects will appear, etc.

The following tabulation records the choices in order of preference expressed in these letters.

	First Choice	Second Choice	Third Choice	Fourth Choice	Fifth Choice	Total
Tile	4	3	.	.	.	7
Mosaic Tile	No preference indicated.					
Mozaic Marble	.	.	1	.	1	2
Terrazzo	5	.	.	1	.	6
Cement	1	.	.	.	.	1
Magnesite	.	.	.	1	.	1
Rubber Tile	2	1	1	.	.	4
Cork	.	1	.	.	.	1
Cork Tile	.	.	2	.	.	2
Linoleum	6	.	2	1	.	9
Wood	1	2	.	3	.	6

It will be noted that tile was the first choice of four and the second choice of three. In other words, it received seven votes for either first or

second choice. Linoleum has the preference of six as first choice, two as third choice, and one as fourth. Considering the first and second choice group together, tile received seven votes and linoleum six. Under the circumstances, it would be difficult to state whether linoleum or tile would be considered the first choice of the group expressing opinion.

It is reasonably clear that terrazzo is the third choice, and that rubber tile is fourth. If the total number of preferences recorded be taken into consideration, wood has good recognition, with mention in six letters; first choice in one, second in two, and fourth in three.

It seemed to be the general feeling that where tile is used, it should not be white, but should be of some color, preferably gray or green, or in pattern form. The only objection raised to tile was that it is too hard and cold. On the other hand, one writer who has probably had one of the broadest nursing experiences of any woman in the United States, did not feel that there was material objection to tile on that score. Emphasis was laid by all upon the durability of tile and the ease with which it is repaired, and particularly upon the low upkeep cost and the low cost of daily care. The advocates of tile point to the fact that some hospitals in the United States are using today tile floors that were laid twenty-five to forty years ago.

Those advocating linoleum did so chiefly because of its durability, noiselessness, and cheapness of original installation. They all recognized the defect that it is readily pitted by furniture or any heavy object standing upon it. Some stated that this latter defect could be overcome by using a linoleum having a thickness of one-eighth inch to three-sixteenths, and allowing it to season before use. It was stated that a concrete under surface on which to lay the linoleum is preferable, but that linoleum will serve very satisfactorily on a wooden base, provided it be a floor without cracks. All advocated that the linoleum have a felt pad beneath, that the felt be thoroughly cemented to the foundation, and the linoleum cemented to the felt, not merely along its edges, but over the entire surface. Brass strips on the surface along the edges of linoleum were generally condemned.

All who advocated terrazzo floors recognized that this material is liable to crack, and difficult to repair; but each stated that these defects could be overcome by dividing the area into small squares separated by marble strips, or by laying the terrazzo in large tile form. Those who objected to terrazzo did so chiefly on the ground that the cracking could not be readily overcome, and that there was a strong liability of its pitting.

Rubber tile was considered very satisfactory by two writers who gave it first preference. Objection was made on the part of some writers to rubber tile, who stated that for a long time after being laid it gives off a rubber odor, which is objectionable, and that through a long period it would gradually deteriorate.

A number of letters stated that wood would make a very satisfactory floor if it were not for the labor and cost of upkeep. The statement was made that it was necessary to keep the floor thoroughly waxed in order to maintain the surface, and if, through lack of help or for other reasons, the surface should not be maintained, the floor would be damaged at least to the extent of becoming unsightly.

The replies may be summarized somewhat as follows: tile and linoleum are about equally in favor. The original cost of tile is considerably more than linoleum, but its upkeep and daily care cost somewhat less than linoleum. Terrazzo is favored, and is very satisfactory if laid in small slabs separated by marble strips or if in some other way provision is made that will obviate cracking.

The floor selected by the Bellevue trustees for the wards of the new building was linoleum. In reaching this decision, the trustees had before them all the letters which form the basis of the foregoing article. They recognized that linoleum and tile were almost equally in favor. The estimated cost of linoleum is about twenty-five per cent less than that of tile. The estimated cost of the floor for a typical ward, eighty-seven by thirty feet, as submitted in August, 1919, was as follows:

(1) Entire surface covered with tile..... $2,150
(2) Tile, with a runner of linoleum thru center of ward, on a concrete base.. 2,000
(3) One-fourth inch battleship linoleum on concrete 1,580
(4) White oak floor laid over spruce under flooring 1,950
(5) Wood floor same as the foregoing, with linoleum runner on concrete base... 1,880

The writer has been examining hospitals and institutions in various parts of the United States for somewhat over ten years, and his observation of floors in use runs parallel with the experience recorded in the replies listed in the foregoing article.

Though the inquiry sent out by the trustees applied only to ward floors, a number of the replies gave valuable information with regard to floors in corridors, private rooms, and other parts of the hospital. This information may be dealt with in a subsequent article.

The MODERN HOSPITAL

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PROGRAM FOR HOSPITAL BETTERMENT

IT WOULD be difficult to conceive of a week more fraught with possibilities of noteworthy progress in the medical and hospital field than the week of March 7, when the Annual Congress on Medical Education, Licensure, Hospitals, and Public Health, held its sessions in Chicago. It was a week marked by a gratifying spirit of unity, good-will, and comradeship.

The most important developments of the sessions of this Congress were the whole hearted endorsements by the American Conference on Hospital Service of the so-called minimum standard of the American College of Surgeons, and the formulation and adoption by the American Conference on Hospital Service of a well-defined, constructive program.

In endorsing the minimum standard of the American College of Surgeons, full and ungrudging recognition was given to the contribution made by the College to the improvement of hospitals in this country and Canada. This action will meet with the hearty approval of all who know what the College has accomplished. Not only for what has thus far been achieved in and for the hospitals by the standardization campaign itself, but also for the remarkably effective groundwork laid in the years immediately preceding the actual campaign, unstinted credit is due the College and Mr. John G. Bowman, its former director, to whose able and stimulating leadership the success of the movement is largely due.

The second and, without doubt, the most significant outgrowth of the sessions of the Congress was the adoption by the American Conference on Hospital Service of a definite program to meet certain well defined public needs. This program comprises four definite lines of action. It calls for the maintenance of the Hospital Library and Service Bureau, already well under way and rendering an increasingly helpful service. It commits the Conference to definite action along the lines of hospital standardization, including not only the endorsement of the minimum standard of the American College of Surgeons, and the inauguration of negotiations for the transfer of the field work of the College to the Conference, if and when the College desires to transfer the work, but also the formulation of additional standards applicable to follow-up work, statistical reports of clinical work, accounting, nursing, and the like. It provides for cooperation with the committee appointed by the Rockefeller Foundation to develop a concrete program for the training of hospital executives. It calls for the development by the Conference of higher medical standards and more efficient community medical service by supporting the American Medical Association in the further development of intern standards, by promoting the intern year as the prerequisite for independent practice, by furthering the systematic teaching of graduates at hospital centers, and by forwarding plans for the establishment of a closer relationship between practitioners and well-equipped diagnostic centers.

Here is a program the carrying out of which will mean a healthier and more vigorous nation. It is simple, sharply defined, realizable within a reasonable length of time, the desirability and importance of whose component parts none will contest.

THE MODERN HOSPITAL shares the hope that this program will enlist the enthusiastic support of all the organizations specifically interested in medical, hospital, and health work, and sincerely believes that its inauguration marks the beginning of a new era in medical progress and hospital betterment.

THE PRINCIPLE WHICH MAKES FOR SUCCESS

DO YOU belong to that line of torch-bearers reaching back into the past? Is your record one of courage and of fearlessness; one that has escaped emptiness and tedium in its day by day

unfolding; and one that has really made for the stability of your community and for the happiness of the folk in it? Are you in your own honest analysis a success?

Comes now the Spring and a quickening of the blood. And comes now also to you, if you are really a torch-bearer, a desire to rise a little earlier each morning purely for the joy of working again for a cause that thrills you to the finger tips.

If you find such an impulse living within yourself, then almost certainly you proceed through each day not from fact to fact nor from mere detail to mere detail, but you act in accordance with great compelling principles. You never doubt your success; you cannot doubt it. What, then, are the principles which make such a life a reality?

The outstanding principle, in answer to this question, is one so simple that it seems axiomatic. For this reason we may fail to grasp its importance or to include it in the apparatus of our minds. The principle is that you analyze at regular intervals the results of the work for which you are responsible, gain increase of intelligence by this process, and use your increased intelligence for better work in the future.

The working of this principle in you will not prevent you from making mistakes. But it will largely save you from making the same mistake a second time. Further, it gives rise to a number of subordinate principles which are also essential in success. They are as follows:

1. The individual must be free at all times to use his knowledge, foresight, and endurance in shaping the aims and details of his work. He must carry a responsible share in the work. Staff meetings, for example, or board meetings, or little conferences about the superintendent's desk, if they are conscientiously analytical, afford this opportunity. Such occasions force responsibility upon the individual.

2. Again, constant analyses of results soon lead us to conceive that intelligence is not something that is attained once and for all time, but is something rather, forever in the process of forming. When physicians and surgeons learn to look upon illness in this way, they see it as an incomplete and ever developing condition. What exists is a sign of what is to come. The analyses at staff meetings are then concerned not only with what exists but also with what is to happen next. This process stimulates thought and leads to real triumph, which is the triumph of the worker who thinks. It makes for supreme happiness. Are not too many doctors, superintendents, and nurses today the mere semi-thoughtless victims of routine?

3. As you learn to think forward from hour to hour, and to keep your mind open and alert, your very work takes hold of you and stimulates you to new effort. If now you conceive that good in this world, that all that is worth while in this world, endures only by communication and that your work is itself the communication of good (that is, happiness, relief of pain, and the prolongation of life,) then all the tedium and the repetitive details in the practice of medicine and in the task of administration must interpenetrate with the highest aspirations of your life. Study, diagnoses, treatments, and details of hospital management, fuse with faith or aspiration. The former becomes the apparatus of the latter. Work becomes religion. This conception, when it is vital, is the foundation of greatness in research, or of greatness in any other phase of medical or hospital service.

In general, no plan of a life worth while nor of an organization which aims to give service can succeed in a large way without utilizing the foregoing principles. They are the creed of the torch-bearer. They are the secret by which we may widen swiftly the range of our experience, loose imagination, and set ourselves free from the tyranny of present customs. They are the fundamental philosophy of success.

The attempt to cope with trouble or to overcome our difficulties by the adoption of rules and regulations, like recipes in a cook book, is futile. We must get away from that idea, for it is like trying to win success without effort. That is the road to defeat. We must remember every minute that our decisions in the past cannot wholly be relied upon to show us a wise course into the future. Our efforts to be right can never be final; they are subject always to fresh adjustment and change in view of new consequences. Results and then more results and then more results must change, and change again our ideas of what is wise. This way of going forward takes courage and great integrity. It requires that we admit freely our mistakes and that we accept our mistakes not as accidents to be forgiven, but as lessons in wrong methods. Mistakes show us our need of breadth of view. Mistakes make us flexible, if we profit by them as we should, and they make us grow. They lead us constantly along paths of fewer and fewer mistakes.

Every doctor, every hospital superintendent, and every nurse is under a sacred obligation to develop his or her capacities for service to the utmost. This means that these folk are under sacred obligation to make life principles for themselves out of the principle of review. The living of that principle in us is vital to all that in our hearts we hope to accomplish.

JOHN G. BOWMAN.

WISCONSIN BILLS COMPEL OPEN HOSPITALS

THERE were recently introduced in the Wisconsin legislature two bills of vital interest to hospitals. Somewhat similar bills, we understand, have been introduced in the legislatures of several other states.

One of the bills states that "Every person, persons, corporation or association conducting a hospital or sanitarium excepting such as are owned, maintained, or operated by a regularly licensed physician or physicians, exclusively for his or their own private practice, shall not in any manner discriminate between the patients of any regular licensed physician or between regularly licensed physicians, by reason of the fact that said physician is not a member of the medical staff of said hospital or sanitarium, or for any other reason, and such hospitals and sanitariums are hereby compelled to admit and care for the patients of any regularly licensed physician." The penalty for violation of this act is not less than $500 and not more than $1,000.

The second bill, evidently introduced to accomplish what might not be secured through the ordinary processes of our courts whose decisions are open to public review, proposes to punish hospitals that discriminate between the patients of any regular licensed physician, or between regularly licensed physicians, by depriving them of their rights of exemption from taxation. This bill declares that "No hospital or sanitarium shall be exempt from taxation under the provisions of this section unless such hospital or sanitarium is open to the patients of any regularly licensed physician and does not discriminate, etc."

Both of these bills are pernicious and contrary to public welfare in that they violate two of the most important principles of hospital service: the principle that the hospital is responsible to the patient for the treatment the patient receives within its walls, and the principle that the hospital is a medical institution organized and maintained for the benefit of the public.

That the hospital should be responsible for the treatment which the patient receives within its walls is a principle that one may now rightly regard as fully established by court decisions. Clearly, if the hospitals can have nothing to say regarding the physicians who treat the patients they admit, which means they cannot question any of the acts of these physicians, and if the hospitals cannot protect their patients by denying incompetent physicians the use of their institutions and equipment for the purpose of performing operations, and for other purposes, the patients cannot hold the hospitals responsible.

The hospital is more than merely an institution where the medical profession may house their patients. It is an institution to which the public is turning in increasing numbers, and with increasing confidence that the men on its medical staff are adjudged competent to do their work by authorities far more able to judge of this work than themselves. Unfortunate, indeed, it would be if it were possible for any physician to undertake any major operation without any control as to his fitness to perform it. It would destroy the protection the public now enjoys, by reason of the assumption by the hospital of its responsibility in permitting the performance of operations within its walls.

These bills embody class legislation for the personal and pecuniary benefit of those who practice medicine, and they are clearly against the interest of the public at large.

The legislative committee of the Wisconsin Hospital Association is watching these bills carefully and may be expected to do all in their power to prevent their passage.

FATIGUE AND EFFICIENCY IN HOSPITALS

IN HIS article on the effect of the eight hour day on the hospital budget (page 337), Dr. Brodrick calls attention to a vital subject—the relation of fatigue to efficiency among hospital employees.

A number of comprehensive scientific studies of the relation of fatigue to efficiency in industries have been made during the past few years by the United States Public Health Service, and other equally authoritative agencies, and the facts gathered go to show that beyond a certain length of time, depending among other things upon the character of the work and the physical and mental condition of the workers, production decreases and its character is lowered. Progressive leaders of industries with an eye to maximum production and high efficiency are cognizant of the findings of these studies, and thoroughly alive to the intimate relation of fatigue to efficiency. Dare the hospital superintendent lag behind in the practical application of the findings of these studies in the management of his institution, where the fight for human health and life demand alertness and the highest type of efficiency? It is a fact that cannot be gainsaid that hospital employees have until recently been overworked in many institutions, and in many are still overworked. In a measure this accounts for the rapid turn-over under which some departments of many hospitals labor, and the difficulty they have in getting and keeping competent employees. It stands to reason

that, other things being equal, persons seeking employment will choose positions which do not subject them to the fatigue of long hours of strenuous employment. The reduction of labor turn-over, the health of employees, increased production and better service, all point to the establishment of a working day of reasonable length in which fatigue is reduced to a minimum. Each hospital superintendent should do what he properly may to see that the income of his hospital and the scope of its work is such as to make this possible, for, as Dr. Brodrick aptly says, "Philanthropists (we add, for that matter, any others who may be running institutions) have no right to impose hardships on one portion of the community while healing the ills of another." Indeed the efficient service of the hospital demands that they shall not.

FEWER QUESTIONNAIRES

A PROBLEM to be a problem, must have at least two sides to it, a question may have but one, and a riddle—but then, nothing is a riddle in these days. The subject of questionnaire sending takes on the dignity of a problem when one stops to look at the two most apparent sides. Has a hospital superintendent, or any unauthorized individual, the right to send out questionnaires to other hospital superintendents, and thus give them an added burden, when most of them already have as much as they can manage? On the other hand, has a busy superintendent the right to toss questionnaires in the waste-basket when he has the information which will help another hospital, and further the cause for which he is working? The old question of the right of the individual versus the right of the community!

But now, at the period of our greatest bewilderment, when questionnaires are daily increasing and the patience of superintendents, therefore, is daily decreasing, the American Hospital Association comes forward and suggests a solution, a way of reducing the number of questionnaires, yet attaining the desired result.

The solution is—let the hospital superintendent who feels moved to send out a questionnaire save himself a great deal of trouble and expense and write in to the Association, or the Hospital Library and Service Bureau. From the annual reports and other data on file in the office of the Association, and being collected by the Hospital Library and Service Bureau, many questions can be answered at once. There will be some points which can only be answered by direct questions to hospitals, they will be clearly formulated and sent with a stamped addressed envelope for reply, to a sufficient number of Association members.

The institutional members of the Association represent the most active and best known institutions, and if they will see that the Association and the Library and Service Bureau have copies of their annual reports, constitution and by-laws, staff organization, and other rules, also any tabulations of facts and figures which they have, they will be acting both selfishly and altruistically. If hospitals receive questions which could be answered by the Association or the Library, they will be justified in referring the inquiry to one of these agencies.

Very few people enjoy being questionnaired. Here is a way which, with a little cooperation from hospital superintendents, will go a long way toward solving the difficulty.

EVERY REASON FOR ENCOURAGEMENT

ALL who read the various review articles which appeared in our March issue must have gained the impression that, on the whole, there is every reason to be encouraged by the progress made in the hospital field last year. There were dark spots here and there to be sure. Not all of the state institutions rose to the full measure of their opportunities; not a few of the hospitals of one hundred beds and more failed to qualify for the American College of Surgeons' list of approved hospitals; the volume of new hospital construction was relatively small; hospital administration was retarded because of the high cost of both supplies and personal service; the number of students entering the nurses' training schools was small; no adequate preparation was made to deal with the great problem of mentally diseased ex-service men.

On the other hand, we believe that these dark spots were more than offset by a large number of bright ones. The achievements of the various national, state, and provincial hospital associations; the further standardization of hospitals under the leadership of the American College of Surgeons; the rapid growth in the number of dispensaries and of evening and pay clinics to meet the need of employed people, and their increased efficiency under the stimulus of various local surveys; the advance made in the methods of instruction of nurses; the growing realization among hospitals of the need of a good dietary and the consequent growing recognition of the functions and authority of the trained dietitian; the establishment of more psychopathic hospitals and the outpatient clinics; the growing interest in the training of hospital social service workers; the larger part taken by the hospitals in the treatment of venereal diseases; and the increased recognition

given by hospitals to occupational therapy—all of these point to a year of striking progress that cannot but be a source of satisfaction to all who are interested in the development of efficient hospital service.

AN ERROR CORRECTED

IN A recent circular letter sent out by THE MODERN HOSPITAL to members of the National Society for the Promotion of Occupational Therapy, it was stated that THE MODERN HOSPITAL was the only means of intercommunication between members of the society. At the time this letter was issued, the editors were not aware that the *Maryland Psychiatric Quarterly* had for some years devoted space to the interests of the society, and that this magazine had been distributed gratis to the members through the courtesy of the Maryland Psychiatric Association, under the direction of Dr. William R. Dunton. We wish to apologize for this oversight and at the same time to renew our statement that THE MODERN HOSPITAL, through its Occupational Therapy and Reconstruction Department, is also serving the interests of occupational therapy, and is, through its occupational therapy editorial board, anxious to serve the interests of the national society in any way possible.

AN ENGLISH HOSPITAL EXPERT

SIR NAPIER BURNETT'S name is widely known in the hospital world, not only in Britain, but also in the United States and Canada.

Early in the war, Sir Napier was requested by the Director General, Army Medical Service, to become a member of his personal staff, and was set the task of supervising expenditure in military hospitals.

As is the case today among voluntary civil hospitals, there was practically no coordination existing between the individual military hospitals. This was especially the case in the early days of the war, when hospital after hospital had to be rapidly improvised and called into being. Many of these hospitals were administered by commissioned medical officers who did not possess any training in hospital administration.

To bring about a coordinated system, Sir Napier instituted and put into operation a scheme whereby every military hospital received: (a) a personal visit by an inspector, who gave a brief address to the medical and surgical staff and also to the nursing staff on the principles underlying hospital expenditure. (b) A series of monthly comparative returns which made each hospital aware not only of its own position, but also of that of every other comparable hospital on the specially drafted expenditure tables.

The silent pressure of these comparative returns effected an enormous improvement in the cutting out of all avoidable waste, in the lowering of costs without interference with efficiency, and in the development of a widespread spirit of keenness in hospital administration.

Sir Napier Burnett is a Scotchman, hailing from the county of Aberdeen. His early medical education was received in the University of Glasgow, where, after a distinguished career as a student, he graduated Bachelor of Medicine and Master in Surgery in the year 1895, and later on was admitted to the degree of Doctor of Medicine.

Sir Napier is a fellow of the Royal College of Surgeons, Edinburgh, and also of the Royal College of Physicians, Edinburgh.

At the close of the war he was honored by His Majesty the King in being created a Knight Commander of the Order of the British Empire (K.B.E.), and just recently he has been admitted a Knight of Grace of the Order of St. John of Jerusalem in England.

During the past year Sir Napier was appointed Director of Hospital Services under the Joint Council of the British Red Cross and Order of St. John, and as

Sir Napier Burnett, K.B.E., M.D., F.R.C.S., F.R.C.P. (Edinburgh), Knight of the Order of St. John of Jerusalem in England, Director of Hospital Service, Department of the Red Cross and Order of St. John.

such he has carried out two important hospital surveys, namely:

(1) Survey of the voluntary civil hospitals in England and Wales, showing: (a) the volume of work done at each hospital; (b) the financial position during the year 1919, analyzing the ordinary income so as to show the percentage derived from workmen's contributions, patients' payments, and payments from public corporations.

(2) Financial survey of all voluntary hospitals throughout Great Britain, showing income, expenditure, and unearmarked legacies received during the five years of the war, 1915-1919, inclusive.

There are few men who possess so wide and intimate a knowledge of the hospital problem in Britain as Sir Napier Burnett, and we believe no one is more capable of finding a solution for the present troubles of the hospitals.

Formerly a consulting surgeon in Newcastle-on-Tyne, Sir Napier was "discovered" by the war, and his work at the War Office in connection with military hospitals revealed him as a man of wide vision and of great organizing ability.

MY LEISURE

By C. IRVING FISHER, M.D., Formerly Port Physician, Boston, Mass.; Superintendent, Massachusetts State Infirmary; Superintendent, the Presbyterian Hospital in the City of New York

WHEN I announced to some of my friends, about 1913, that I was thinking of giving up my work as superintendent of the Presbyterian Hospital in the city of New York, "retiring to private life," there were some who said, "Why, Doctor, what will you do? You are too active and vigorous to give up work now," and they cited instances among their acquaintances of those who had retired, had been very lonesome, unhappy, and even melancholy.

These things, however, did not deter me in my plans. I felt confident of my own resources. All along in my life, I had realized that there were many things I wanted to know more about, and places in the world that I wanted to visit, which my life work had not permitted. I had long had a very strong feeling that I did not wish to arrive in Heaven and find myself in the primary class, because I had not acquired the knowledge which I should have while here on earth.

I presented my resignation which took effect July 1, 1914. I had the pleasure of realizing what Oliver Wendell Holmes suggested would be pleasant in his "Rip Van Winkle, M. D."

"Why can't a fellow hear the fine things said,
About a fellow when a fellow's dead?"

I read my obituaries in the papers and hospital magazines—And—Was—Free. Age, sixty-seven plus.

On July 2, as on my usual summer vacations, I started with my automobile and two or three friends, to visit my old neighbors, friends and relatives in New England. This time I realized that my vacation was not a thirty day affair, no limitations except the convenience of the friends visited.

About two years before leaving the hospital, I had suggested to the board of managers that I would like to begin a "normal life," i. e., to have my home away from the hospital, (my residence had always been in the hospital). This was granted and I moved to the apartment which has been my city home ever since. When I returned, therefore, from my New England trip in the fall, I came to my established home life.

Soon after my resignation, I was elected a member of the board of managers of the hospital, and placed on some of the active committees. The president of the board said to me, "Doctor, when we elected you a member of our board, we had two things in mind. First, we want your counsel in the affairs of the hospital. Second, we want you to feel that the hospital is still in a sense home, and everybody in the hospital to know that you still belong there."

About two years after this, I was elected a member of the board of governors of the New York Skin and Cancer Hospital. My duties in these two hospitals require no small part of my time, and, as may be imagined, bring me into pleasant relations with hospital service and my associates. It also makes, I hope, my long experience still of value. I am able at times to give my associate trustees "the superintendent's viewpoint."

I am occasionally asked to give an address to the graduating class of training schools for nurses and other schools; also to address Y. M. C. A. meetings and men's clubs on subjects upon which a physician speaks with authority.

My early visions of life after leaving the hospital pictured a home in my native New England town near the friends of youth and early manhood. But, when the time came to decide, some things were forcefully impressed upon my mind. My recent visits in New England had made me realize that those old friends were a vanishing number. Many had either died or, like myself, were living elsewhere. Also, that real companionship, comradeship, is developed through the experiences of life. My experiences for nearly a quarter of a century had been in the Great City, and had given me tastes, desires, habits, not needed nor lived by my old friends in the quiet New England village. New York City, with all its privileges, opportunities for study, education, recreation, etc., had been mine, and must still be available if I was to get the most out of life. The same was true of my family. So we decided that New York City should be our home. Here I would continue the friendships that I prized and the activities in which I had become interested. Here were the opportunities for growth in knowledge along the lines of my tastes and desires. Not for one moment have I doubted the wisdom of my choice.

I am a member of several societies and clubs, organizations which bring duties and responsibilities and pleasant associations. By reason of having outlived several others, I am "senior elder" in the church in which I have long been a member. This keeps me in pleasant touch with the church activities.

I attend some lecture courses, with an occasional theatre and the opera. Add to these the morning papers, magazines, books, and the letters to children and friends. Really, I have not for one moment experienced any sense of the loneliness or "blues" which my friends feared. When I was in the hospital, I often wished there were more hours in a day and more days in a week, there was so much to do. I sometimes wish so now, there is so much to do and to enjoy.

Everyone who has been at the head of a large institution has, I am sure, realized that the friendships formed in connection with it have been surrounded by a sort of restraining official atmosphere. They do not have the sense of freedom and companionship, which develop outside such official positions. It has been one of the delights of my "private life" that I have lost the official restraint; and have come into richer and warmer companionship with those with whom I was formerly associated.

We have our country home in Lockport, New York, and go back and forth in our automobile. We drive moderately, enjoy the scenery, and stop when we "guess we have ridden far enough for today."

Our Lockport home is just within the city limits. West of us, the city. East of us, the Country Club (of which we are members) with its golf links, tennis courts, etc., and beyond, the country, with its farms, vineyards, orchards, wheat fields and gardens. We have our own garden with vegetables, fruits, and flowers in abundance. If we lack any particular thing, there are neighbors, with nearby farms, with a most generous "help yourself" attitude.

Everybody cans and preserves fruits and vegetables, and we have caught the habit to the extent of making the

season in the country take care of the season in the city.

Occasional all day automobile trips with friends are a part of the season's plans.

My garage is also my workshop. I inherited considerable mechanical ability, and a large kit of tools for working in wood and metals, and enjoy using these about the house and my car.

Reducing the account of My Leisure to its lowest terms —I should say it is: time to cultivate my family and friends, to write letters, to read books, to travel, and, in season, to enjoy the things which can only be found in a great city, and, also in season, to enjoy the things which can only be found in the country.

One cannot read in the daily papers the doings of some of our senators in Washington, without realizing that a man "plus seventy" needs to keep on his guard about some things. So—I carry in my pocketbook a clipping which reads, "Most men as they grow older realize what asses they have been, but few realize what asses they are."

Occasionally, of late, as I have been entertaining some of my friends with a story, or description of things seen, people met, etc., in my travels, I have noticed a nodding of the head. At first I thought this was in approval of my remarks—but later (when more light was turned on) I discovered that the eyes were closed, and once a suspicious, but familiar, sound emitted suggested??—well —that I was probably the most entertained party in the group—and now I am wondering if this also does not belong to "plus seventy?"

I remember also that repeating the same story several times to the same people, is more or less associated with "plus seventy." So when I start to tell a story, or relate what I think is some amusing incident in my life, I recall a delightful old friend who came into my office in the hospital one day—his tongue a little loosened by the wine with his dinner. He began to tell a story but stopped suddenly with—"er—er, have I told you this before, Doctor? I don't wish to repeat myself except upon request."

I do not know that these things altogether save my friends—but they help—and—I Am Enjoying Life.

A MODEL PEDIATRIC SERVICE FOR THE MODERN GENERAL HOSPITAL*

By FRANK HOWARD RICHARDSON, M.D., Assistant Pediatrist and Chief of Children's Clinic, Brooklyn Hospital, Brooklyn, N. Y.

IN A recent issue of a journal devoted to the problems of his specialty, a colleague has discussed a model organization for a gynecological and obstetrical service, using as a model or point of departure service already existing in one of the best of our large general hospitals. This actual fabric of fact he has embroidered with colors supplied by a rich imagination, and has created what he considers an ideal service for his branch of surgery.

It has seemed to the present writer that something of a similar nature was called for in the realm of pediatrics, if this specialty is to be taken seriously, and given a dignified status in the cosmos of the twentieth century hospital. The usual tendency seems to be to tag a children's ward and a children's service to the tail end of the general medical, fill the ward with a general hodge podge of surgical, medical, and orthopedic cases, which have nothing in common but a relative similarity of ages, and let each attending treat there all of his cases who happen to be under twelve years of age. Naturally, such a ward has, and can have, no settled policy and no coherent plan, except such as is carried in the head of the actual pediatrist, and head of the ward, the head nurse. The chief of the children's service can of course order nothing for the patients of the other men who chance to be in the ward. Even though the general surgeon is quite willing, as a rule, to confess to a complete ignorance of the intricacies of infant feeding, he and the nurse must battle through the alimentation of the surgical children, until nature rallies to their aid and cures them, in spite of faulty feeding, or they become so frankly cases of malnutrition that he washes his hands of them, and turns them over in desperation to the pediatric service. This procedure will take perhaps a week, but more likely a month, too late for the best interests of the patients, and for the peace of mind of the man who has to try to regain the unnecessarily lost ground in feeding them.

Our feeling, then, is decidedly to the effect that all children in a hospital should rightly be in the children's service, which is organized under one head, a pediatrist. Whether or not he shall be considered, for administrative purposes, as under the medical chief (just as, for instance, in the hospital which we shall use as our text, the orthopedist and the otolaryngologist owe allegiance technically to the surgical chief), is a matter of minor importance. The main point is, that if a medically sick child or a well child is such a different being from an adult that he requires the trained services of an expert in order to properly nourish and guide him, still more is this expert knowledge and attention of right his, when surgical risks are superimposed upon medical, or when he is trembling on the verge of a tonsillectomy for which his general condition at the moment may be totally unfit. In our ideal service, then, all others treating children in the hospital should do so under the direction of the pediatrist; who then would not transfer his little patients to the surgeon, the orthopedist, or the nose and throat man, for their respective services, any more than he now transfers them to a radiologist or the pathologist, when he desires an x-ray or a blood culture. To paraphrase a remark made about the relationship that should exist between the physician and the surgeon in this regard, we might be permitted to ask that the other services act in this particular as the handmaidens of the pediatric. I remember a case in point recently seen, in which a baby with bronchopneumonia and erysipelas was having a sore over the sacrum dressed by the surgeons. A careful consideration of the case in the light of its whole picture, rather than as the work of two departments, brought out the fact that, in all probability, the offending organism causing all the trouble was a streptococcus which had entered via the sacral lesion.

If authority or references be asked for, for this conception of the best organization for the ideal functioning of a children's ward, we may be pardoned for indulging in a personal allusion, and pointing to the plan of the

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Babies' Hospital in New York City as a model that may well be set before any children's ward. Perhaps no better effort could be made by any pediatric ward than to endeavor to approximate as closely as possible to this model. The hospitals that have done the best work, like the armies that have consummated the greatest campaigns, have been those in which there was a centering of authority and responsibility in one head. The commission form of government, while admirable for a city democracy, is not an ideal solution of the problem of hospital service.

In a discussion of this sort, it is perhaps as well, before going further, to postulate certain things as being granted by us all. If these are not taken as axioms, then the conclusions that we draw will not be binding. We shall assume, then, throughout this paper, that the mission of the modern hospital is threefold: first, comes the ministering to the sick within its doors; second, the instruction of the medical fraternity of the community, both within its staff and without—the hospital that fails in this second duty, of course, thereby confesses to its failure in the first, as we nowadays believe; third, the duty of educating the lay portion of the community in all matters pertaining to its health, individual or collective. All these functions we must bear in mind in planning our pediatric service, if we are to secure the best results.

Let us enumerate the various positions that should be comprised in the ideal staff, and then go on to map out their duties and scope. We might name the following: a consulting pediatrist; an active attending, or pediatrist in chief; two associate pediatrists; two senior clinical assistants; and adjunct clinical assistants, to the number justified by the size of the clinic connected with the service.

Considering these functionaries in the order of their rank, we find first, the permanent consulting behind the permanent chief—permanent, that is, in the sense of having a continuous service. The consulting should be considered not in any sense as an emeritus, whose worth and usefulness are things of the past, but should be available, and constantly and freely used by the chief, for counsel as to the policy of the service, as well as for consultation over individual cases. From his riper experience, he should be a source of inspiration, as well as a rich mentor, for the teaching part of the work.

The permanent attending pediatrist, or chief, is the man on whose ability and personality the success or failure of the whole service depends. As the whole machine is dependent upon him, and he is answerable for its performance, he should of course initiate the nomination of his subordinates, who will be appointed by and with the advice and consent of the board of trustees, managers, or governors, who, of course, hold the official appointing power. Their period of service should be co-terminous with their chief's.

In addition to the duties and privileges naturally inhering in such a position, the following special points ought to be mentioned. It goes without saying that a man who accepts an appointment to the headship of a service in this day and generation will take his appointment not as a sort of Croix de Guerre, or benediction for work well done in the past; but rather as a commission, which invests him with the obligation to perform yeoman service in the future. Like the head of a large going business concern, he will keep in touch with every phase of his department, from the diet kitchen to the O. P. D. The part of his work which is, and of right ought to be, the most prominent in his mind, is the making of his daily rounds, on which as many of the associates and clinical assistants as possible should be not only invited, but expected, to be present. One of the first things necessary, in order to invest this function with its proper importance, is to set, and adhere to, a fixed hour. Without this, it is of course impossible to give the rest of the staff the ward privileges to which their work in the clinic entitles them. An attending, who is too busy to keep faithfully to this appointment, except in rare emergencies, is too busy to undertake the confining duties of the headship of an important department in a modern hospital. It has seemed advisable, in view of the teaching feature of our model service, without which we have agreed that our hospital is shirking one of its prime reasons for being, to have these rounds deal with but a selected number of cases on any one day, rather than to feel that every case should be seen by the chief on rounds every day. In this way, while it will not take many days for the complete circuit to be made, enough time may be devoted to each case considered to make the hour one of very real instruction to the practitioners on the staff who are taking time out of their busy days to attend, and who are justified in expecting the profit they obtain from these rounds to compensate them for much of the routine work that they devote to the clinic. The writer ventures to say that such rounds, as given at a hospital not a thousand miles from here, are well worth the time of any man in this city, giving, as they do, to the half dozen men who attend them, a veritable postgraduate course in pediatrics, which greatly sweetens the necessarily wearisome grind that is inseparable from the maintenance of an out-patient department. The quizzing done by the chief, addressed in turn to each man present, regardless of age or rank, proves a most valuable and stimulating exercise. The two, three, or at most four cases seen during the hour are not too many to be read up by the men the same day; and it is surprising to find what a range of pediatric reading will be covered by such a daily stint. Guests should be welcomed; nothing keeps up the tone of this function like the feeling of being under outside observation.

Such rounds may well either begin or end at the dispensary, where there is always some material which may well be drawn upon to point a pediatric moral or adorn a children's tale. Such a daily visit to the clinic has several very good effects. It gives the patients a comforting sense of the importance placed by the hospital authorities upon this part of the work. It shows clinical assistants, nurses, and everyone else in the dispensary building that the hospital considers them, not as a body apart (which, unfortunately, is so often the case), but as a very real, vital part of the institution. It gives the chief an idea of the sort of attendance record the clinical assistants are making, and gives them, by the same token, some incentive toward a faithful attendance, when they see that this is seen and appreciated.

While we are speaking of rounds, we may logically take up two other matters which we have considered almost essential to the building up of the *esprit* that will make possible such a service as we have been considering. One is a weekly period, somewhat longer than the daily rounds, which has been humorously referred to as "Grand Rounds." At this time, there should be a formal medical taking of stock, when each case on the service, properly briefed and brought down to date by the clinical assistant charged with its conduct, is presented, and the events of the week gone over by the whole staff in the light of any new developments that have taken place. Assignment of special topics for preparation outside may be made at this time.

Some services have dignified some of the points mentioned in the last paragraph to the extent of forming a clinical society for their consideration. The very intimacy of the workers with each other, and the possibility of verifying disputed points at the bedside, make such a society one of the most valuable that one can well imagine. This proves an excellent place to try out the reaction produced by any papers the members expect to present elsewhere.

The other matter, which may either be made a part of "Grand Rounds," or else grow out of it into a separate function, consists in the establishment of a weekly didactic clinic, such as was developed to a high degree in prewar days in a hospital in this city, not connected with any teaching institution proper. To this were invited the members of the entire hospital staff (including the O. P. D.), as well as physicians throughout the city who had signified a desire to take advantage of the privilege. Such a demonstration clinic proves a wonderful stimulus to the men of the department that puts it on, making the working up of cases for this definite purpose a matter of vital interest.

There should be two associate attendings, on continuous service, but alternating as to their functions. Of these, one is in direct charge of the ward work; the other is chief of the clinic. The duties of the associate on the ward approximate those of the resident, in hospitals where there is such a functionary. His most important duties consist in: (a) acting as attending in the absence of his chief; and (b) seeing and treating daily all cases in the house, with the exception of those dealt with more exhaustively by the chief, on his didactic rounds. In addition to these functions (which, it will be seen, make his position on the staff one of great importance and responsibility, far greater than is ordinarily understood by the term "associate"), he should know, and should frequently be called upon to demonstrate, that he knows, intimately and at first hand, just what is going on in the diet kitchen. He should be familiar with the minutiae of the preparation of the infants' formulas, as well as with the varying daily content of the diets for the runabouts. Calories, as applied to hospital dietaries, should have for him none of the terrors of the unknown. He should synthetize and coordinate the work of the various specialists, and arrange the delicate formalities of calling in the handmaidens of the pediatrist,—orthopedist, surgeon, otolaryngologist, and quite as freely and as frequently, the internist. He must be equipped with a knowledge of all the bothersome minutiae about which any blundering inquirer may ask, and all about which the chief should know, but probably doesn't. He should act as a sort of ex-officio inspector-general, to use the military name of a certain unpopular but necessary functionary, whose business it is to know whatever is going on, and to report back to his chief, on needed changes. He should make it his business to drop into the ward at any and all times of the day, and, with or without the assistance of the intern, delve into things that will make the presentation of the cases by the chief more valuable.

The chief of the clinic, our other associate attending, should be, in addition to all that the name implies, a teacher of the clinical assistants. Not only is he held responsible for the actual attendance of a sufficient number of them to cover the cases, but he must so marshal his forces that the newer men are given the instruction so necessary to their advancement and so essential to the vital interests of the patients, and yet so seldom vouchsafed to the entering dispensary man. How well we know the usual formula used in introducing a new man into a dispensary room: "Go right ahead, Doctor, we have lots of material. Just go ahead and treat your cases as you see fit." The chief of the clinic should oversee the work of the new man for a time, and from time to time, so that it may conform to the policy of the service. It is most essential, for instance, that some uniform plan of procedure with regard to infant feeding be understood and employed throughout the clinic. He must so arrange the schedule of the men that the clinic is always at least partially manned, in case daily rounds are made during dispensary hours, as seems wisest, in order that a second trip to the hospital in one day may not be required of the clinical assistants, who are as a rule men in general practice. He should see to it that each man has an opportunity, as occasion may arise from time to time, to be excused from the routine work of the day, in order properly to work up a dispensary case for admission to the ward, or to do some special further out-patient treatment or test, such as lumbar puncture, protein sensitization test, etc. Without some such provision as this, it is quite impossible for the available diagnostic sources of a case to be exhausted before its admission to the hospital, and thus much valuable light may be lost, that might otherwise be brought to bear on the case. Without such opportunity to do something out of the ordinary occasionally, dispensary work quickly degenerates into an uninspiring routine, which soon loses its charm to the busy practitioner, and is endured by the serious minded, ambitious student of a specialty simply as an unavoidable stepping stone to the preferment that he hopes for, inside the house. The result of this belittling of the importance and interest of the dispensary is being seen these days in a situation strikingly like that so dreaded by the business man of yesterday, and only just beginning to be seriously combated by the business man of today, namely the unnecessary "turnover" of new employees constantly coming in to replace dissatisfied old ones who have lost interest in their job. This, of course, results in a constantly repeated training, never completed because the new men in turn drop out before they become really efficient. In the very nature of things, not more than two or three clinical assistants can reasonably aspire to places on the attending staff; but every one of them can demand, and should receive, an invaluable postgraduate course in his specialty, and those allied to it, if only such enlightened policy is put in force and carried out. The reflex effect of such a policy upon the ward service, both as to the character of its conduct and the cases sent in, is wonderfully stimulating. And so the post of chief of clinic has proved to be one of the most important, as well as fascinating and exacting, on the whole staff, in hospitals where the dispensary has at last come into its own.

At last, after skirting all around them throughout this discussion, we come to a consideration of the foundation stones of our edifice, the clinical assistants, whom, as Lincoln once said of the common people, the Lord must love, for he made so many of them. They fall into three classes: (1) the man who plans to do pediatric work exclusively, in time if not right away, and so aspires to a place on the hospital staff; (2) the general practitioner who wants to be able to say that he is connected with such and such an institution, and perhaps have the privilege of using its private rooms for his patients; (3) the physician, young or old, who genuinely desires instruction, and who, if the scheme outlined herein, or some other with a similar purpose, is adopted, will get it. For it goes without saying that the most valuable thing about a clinical assistantship is the instruction gained—valuable, that is, from the point of the patient treated as

well as from that of the doctor. Not only is it a fact that that is virtually the only coin with which his services can be paid, but it is equally a fact that, if there be any virtue or if there be any praise in special departments and special rooms, the mere appointing of a man to a dispensary service does not, *ipso facto*, invest him with the necessary knowledge and experience successfully to perform his duties. It should, therefore, be evident that that hospital is failing in its duties, in both directions, which does not educate its clinical assistants to the best of its ability (which means in the wards as well as in the dispensary) in the discharge of their duties, in other words, in pediatrics.

If some such privileges are extended, certain requirements may fairly be demanded. A reasonably faithful attendance is, of course, taken for granted; the popularity of such a service, as soon as its advantages become at all widely realized, will produce this almost automatically. Each man should be required to read or publish something, as from the service, at least three times a year. A report of a case is surely not such a difficult matter that it could not be accomplished by any man as often as this. A piece of real research work, alone or in partnership with someone else, ought to be done once a year by every man on the staff; a yearbook by one hospital department would be an innovation, but surely not an impossibility! Attendance at rounds is, of course, a privilege, providing rounds are made as interesting as we have a right to demand that they should be made.

I venture to predict that some such plan as the one we have mapped out will have to be adopted sooner or later, if we are to solve the vexing problem of keeping our dispensaries efficiently staffed. The hospital whose clinical assistants are thus given a continuous postgraduate course in their specialty, inside the hospital and out, and are taught to present the results of the work that they have done and the studies that they have accomplished, will soon cease having to beg men to serve in its rooms. Instead, it will have to establish (*mirabile dictu*, can one imagine it?) a dispensary staff waiting list.

A logical way to bring this paper to a close would be to discuss the dispensary in which so many of the activities referred to above are to be carried on. But this, though perhaps the crux of the whole situation, must be taken up in a separate paper; space forbids considering it here. Suffice it to say that a large, enthusiastic, faithful dispensary staff always means a wealth of patients, who soon flock to the place where they get the best treatment. The effect of this on the ward, if only there is the teamwork that we have tried to develop, is self-evident. Only with such a close, organic connection between in-patient and out-patient departments can the true hospital service of the highest efficiency ever be reached. The hospital service that fulfills our three postulates and best serves the patient, educates the physician, and teaches the laity, to the fullest extent of the possibilities than in it lie.

MONEY RAISED THROUGH PRIVATE BENEFACTIONS*

By FRANK CLARE ENGLISH, Executive Secretary, Protestant Hospital Association, St. Luke's Hospital, Cleveland, Ohio

IN discussing the subject of raising money through private benefactions, I will assume a hypothetical case. Here is a hospital, in a populous community, actuated to a service for all the people by reason of humanitarian and religious influences. It has the sympathy and interest of the people because it does a work of real charity for the poor; provides healing for the well-to-do, who are permitted to pay their share of the cost; and renders a vital service to the community. Since no one is charged more than the cost of service, and many are given free and part pay service, it is not commercialized, and is therefore a benevolent institution.

We are all familiar with the cry for assistance, but the important matter is, how can we organize and conduct our hospitals so that they will receive a constant financial support for maintenance and development. If each of us were asked to answer that question would each not have three pertinent self-inquiries: First, do I believe in the institution I represent as worthy of my best efforts and the gifts of others? Second, do I believe myself capable of securing its financial support? Third, to whom shall I present its needs for the help required? The real question, then, will be worthiness, need, interest, and supply. Upon the effective presentation of these points will depend success.

We all realize that private benefactions are desirable. They have a tendency to improve things generally. They have a bearing on the improvement of standards. They remove much exhaustive worry from the superintendent. They put heart into the trustees and staff. They stimulate others to give. They have proved good investments for the giver. When plentiful enough, they are better than tax funds, because they give the hospital the personal touch. Benefactions are as refreshing as the summer showers, and should produce the same response of life and thanksgiving.

What, then, are the principles and processes under which these blessings may be secured?

First, let us go into the psychological laboratory for a word known as want, then into the physical laboratory for a word known as attraction; we will join these words to make a new one, and call it want-attraction. We must not get frightened at a hyphenated word when it is well-born and well-formed, as this one is, for in my judgment the word want-attraction is the key-note of all success. True, it is not found in the dictionary, but it is located in the secret springs of successful careers. The thing itself, the hospital, must possess such attraction that people will want to use it when needed, and they will want their friends to have its benefits. They will want to support it as a place where help may be given to the helpless as well as suitable care provided for the well-to-do. Indeed they will take pride in supporting an institution which renders the best service to the community. True, they may regard the hospital very much as some regard heaven—a delightful place to go, but they want to put it off as long as possible.

The thing that caused Andrew Carnegie to become interested in founding libraries and the development of colleges was his awakening to their benefits when a boy. He wanted information, knowledge, skill, and he sought their sources. Then he wanted other boys to have their advantages and turned his attention to libraries and colleges as the best attraction of a worth while service to

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humanity. In like manner the clinics and hospitals of southern and foreign countries, together with the scientific work of medical and surgical experts, attracted the Rockefellers, and the wants of these philanthropists are finding expression in the development of medical and technical science. So also the Russell Sage Foundation was attracted by the cry of the children, and the want of its noble founder found a satisfaction in appointing millions and men to create better conditions for them.

Similar illustrations could be used of thousands. Seldom do men give to objects simply because they feel it their duty, or an obligation, or merely a desire to be known as a benefactor. Men must see something which attracts them.

This consideration leads me to say, second, that he who seeks benefactions must have a worthy cause. He must also have a strong conviction that he could not give his life to an object more worthy, and that his cause deserves the attention and support of the most influential. A hospital is organized as a healing and an educational institution, and must faithfully perform its mission. There will be no want-attraction if it is loose in administration, business management, or morals; or if the doctors and nurses are careless and neglectful of the sick.

The hospital that would attract the needed financial support will seek always to create and sustain favorable conditions. Such a hospital must have a board of trustees of unquestioned faith and integrity; a board which gives freely of its services and money; a board which looks after the interests of the hospital in every particular. It must have a medical and surgical staff of the highest grade, and nurses of the best training and character. It requires a superintendent who stands in the first class of administrators, who knows how to obtain and give results of one hundred per cent efficiency. Under these conditions the solicitor feels that he has something to represent.

Hospital Must Sell Idea of Its Efficiency

In the third place, thorough knowledge of the hospital business and its operation is necessary to a successful representation. People want fresh facts about the organization and management; they want to know what it costs to run it, and where the money comes from; the number of pay patients, and whether they actually pay their share of the cost of service received; whether there are any real charity cases, and to what extent; what particular results are obtained; and the standing of the staff and nurses, with particular mention of specialists. If new buildings are proposed, they want to know why they are needed, why they should be of certain capacity, whether the plans and cost are consistent, and whether all the money will be raised to complete the buildings without leaving a debt. The best judgment, tact, and skill of the representative will be required in selecting such facts and items as would naturally be of greatest interest to the one solicited.

Business men usually deal in per cents of the highest consistent rates, and when they invest in benevolent institutions they expect their money and service to bring one hundred per cent. It is our business to show them that we make every dollar bring one hundred cents worth, that we are one hundred per cent economical, and one hundred per cent efficient in all service from the janitor up to the highest officer.

May I now tread on sacred ground for an illustration. I say it reverently when I assert that from the pages of the Bible we may construct a manual of the very best salesmanship of vital worth. A study of its methods will show us how to present our cause effectively. Its spokesmen had thorough knowledge of the cause they represented. They believed tremendously in the subject-matter considered. They were tactful, skillful, and resourceful. They had different methods to reach different people. They assumed that their audience had intelligence and moral virtues. They believed they could move them to right and generous action. They began on an intellectual level with the man approached. In other words they knew their man, and knew what they wanted him to do, and had the knowledge and skill to get him to do it. They had vision and foresight of what should be accomplished, and had courage to undertake the most difficult tasks. In building enterprises they published the need, and urged that men should apply the means for the sake of humanity, and in loyalty and obedience to the Creator. Many other deductions could be made of helpful principles, which, when learned and put into practice, would give us a more certain success.

Hospital Needs Must Be Made Definite

Fourthly, the hospital should be definite in its presentation of needs. Many a prospective giver has been lost because he knew there was no definite program. Definiteness and indefiniteness mark the dividing line between success and failure in anything. The giver must be approached with decisiveness and certainties. He must be convinced that the hospital is a responsible institution, well organized and administered, and has a legitimate and definite purpose; that it is properly related to the social agencies; that it does not show too large an expense account in relation to service rendered; and that there is a certain record of results. He will also want to know whether the amount asked is sufficient to provide for the hospital for the next ten years or more to meet the increasing demands upon it for service.

Let us be concrete: the solicitor has in mind all the above facts relative to his institution. He knows why a maternity pavilion or a children's department is needed. If he follows the tramp's method, which is to stand at a man's door and say, "Give me something," "Give me a hand-out," he will receive a beggar's portion. But if he goes in a dignified and confident manner, and sits down, (or tries to sit down) with his prospect under favorable conditions, he can say, "We are under the necessity of building an orthopedic pavilion to care for scores of deformed and crippled children who are being turned away because we have no room. We have physicians and surgeons who are specialists with children and young people. They could give thousands the full use of their limbs if we could only provide room and care. It will require $500,000 to provide a suitable building and equip it. We believe that all children have a right to be born healthy and strong, and that cripples should be made whole. Don't you think so?" That man is on the road to success because he knows what he wants and has pointed facts to say about it.

In the fifth place, there must be some organization for promotion. Getting people interested in a hospital is an art, the only thing that prevents it from being a science is that it cannot always be done the same way. The best way is the natural way, which always starts with the need. The service and the need become an attraction and a want. If we feel the attraction of the service we will want to supply its needs, and our wants will become so strong and we will so present it to others that they will also want to give their support.

Practically every hospital should organize its administration and work on a permanent basis of appeal. The character of its system of management and service should attract the attention and interest of the best citizens. Its

service, needs, and opportunities should be kept in such an attractive manner before the public that it becomes the most potent appeal.

In the largest sense the hospital must discover its own resources, which essentially begin with its most intimate friends. Recently, as director of the hospital survey department, Interchurch World Movement, I discovered that many hospitals were not getting the money needed. Two probable reasons were the failure to aim at the highest grade of efficiency, and the constant leaning on outside and disinterested people for financial support. Many hospitals seemed to expect help to come in some miraculous way; they supposed that rich men and women ought to look them up, and bestow their gifts upon them, with very little effort on their part. But gifts coming in this way are very rare.

Educational Methods Should Be Used

Sixthly, educational methods are most necessary. Nothing can take the place of wholesome publicity. Any efficient hospital has a right to have its work made public, for the better it is known the more readily funds will be found for it. Public interest can best be created and sustained by relating to it a series of outstanding cases of services rendered, and the recital of demands for further service that cannot be met for lack of equipment. Everybody seems to be interested in the remarkable cures of children and adults, cripples made whole and lives saved. The giving out of these facts is the very best propaganda.

Educational methods are of such a variety that it is unnecessary to catalogue them. Sometimes the story can be told in a half page or full page of a journal which is known to reach the constituency. An eight page folder, the size of an envelope, with a picture and a story on every page may be mailed to thousands who may be influenced; multigraphed letters, brief, pointed, and having a purpose may be carried direct to the multitudes on the mailing list; a two page folder telling what we are doing, what has been given for development, and what we need and plan to do, may frequently be sent out. The mailing list should be composed of carefully selected names. Do not shoot at random, aim at something, have people in mind who are able to help, do all that mortal man can do, then trust a beneficent Creator for divine favor. One thing to be remembered always, is that interest cannot be long sustained unless new elements are constantly entering and claiming attention. In approaching a period for campaigning the special publicity should be cumulative. Its force should not reach its height until the campaign is started. Different methods, however, may be used for the quiet search for funds.

Solicitation Should Be Skillful

Seventh, a successful solicitation is much to be desired. How to reach the large benefactor is a subject which scores of executives have studied. No rule can be set down, since every man must be approached differently. But a few observations may be made. One is that no appeal should be attempted until the solicitor has all possible information about the prospective giver; another is the propriety of meeting him through proper channels, and being presented by some one who can vouch for the integrity of the solicitor; another observation is, that many failures occur when success is near.

The greatest illustration of persistency is an event in the life of the founder of Christianity. On a memorable night He went into a well known garden for a mighty contest. Leaving all his followers outside the gate, except three most intimate friends, He entered; then after a period He went on alone, the record reads, "And going yet a little farther." It was at that point He won His victory, and it is at that point when we have gone to the utmost limits, that we shall win in every good and great undertaking. We are all engaged in worthy enterprises. Too often we have failed in our attempts because we did not hold on; we sometimes stopped just when a little more effort or persuasiveness would have brought the desired result. When all efforts seem to fail, when hope flickers like a dying ember, let faith fan it into a flame, "and going yet a little farther" over difficulties that seem insurmountable, and objections that appear insuperable, "going yet a little farther," when all others say it is no use, we will obtain the help needed. The cause is worthy and we should not fail.

It is important that nothing divert the solicitor from his purpose. He will meet objections, but must be prepared to answer them. A personal illustration may be apt here. When Mr. Andrew Carnegie gave me his second refusal of help for a new college building a few years ago, and stated his objections in writing, my cabinet advisors said, "The die is cast, it's no use." But the fact, that he had carefully stated his objections as reasons why he would not give, showed that the lamp was still burning, and I thought that

"As long as his lamp held out to burn
His desire to give might return."

The following six days were spent with my executive committee. We gathered information by telegraph and other ways, and at the end of that period we prepared an answer which we believed was incontrovertible. The result was that a few days later, Mr. Carnegie answered this letter stating that he was glad to give us the half of a new college building. Other illustrations could easily be given.

Two bits of advice given me have been helpful. One benevolent millionaire admonished, "Never to ask for an amount out of modest proportion to the value of present property." This might be best for a college president; but it may not apply when the solicitor represents a hospital Another said, "I will endorse evolutionary methods only, revolutionary methods won't go. You must build gradually and solidly."

I think we all agree that the best way to induce benefactions is to have an institution so well organized and conducted that it becomes an attraction, and the very strongest appeal within itself. When all these steps are carefully followed it requires little persuasion to secure many willing and cheerful supporters, and the larger gifts will come more readily. And finally, the personality of the financial solicitor will have unmeasured weight in securing results.

PSYCHIATRIST HONORED

Dr. Pierce Bailey, New York City, who was chief of the division of neuropsychiatry in the Surgeon General's Office during the war, has been awarded the distinguished service medal. Surgeon General Ireland will soon present the medal to Dr. Bailey at his home.

Of the 110,000,000 citizens of this country, 45,000,000 are physically imperfect, 15,000,000 die annually, 3,000,000 are in bed all the time, and 1,000,000 have tuberculosis. Only 37,500,000 are fairly healthy, and only 19,500,000 are in full vigor. There are more persons in the insane asylums in this country than in the colleges and universities, and it costs more to maintain the former than the latter.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
122 W. 85th Street, New York City

GRAND RAPIDS TRIES AN EXPERIMENT IN THE TRAINING OF NURSES

BY GRACE F. ELLIS, SUPERVISOR NURSES' TRAINING, JUNIOR COLLEGE, GRAND RAPIDS, MICH.

It is a privilege to be able to report in this and the following article the satisfactory working out of two experiments, one an effort to improve the instruction given to student nurses, and the other an attempt to relieve them of disagreeable work that never in any sense of the word should have been classed as nursing. If the great spirit of questioning values that has developed within the student body, and the lack of a sufficient number of applicants to meet the increased demands of the hospitals of this country, which are constantly growing in number and size, result in earnest efforts to increase the educational return to the students and to lessen the drudgery required of them, they may prove potent factors in helping to solve some of our difficult problems.—EDITOR.

THE Vassar Training Camp of 1918 has become a part of the history of the war and the nation-wide efforts this country made that the war might be won. It was the plan of Mrs. John Blodgett, one of the Vassar trustees, and its execution was aided by the Red Cross when Ex-President Taft was interested in it, and by Miss Nutting who furnished the working organization. The fundamental idea was the attempt to carry on the preparatory training of a nurse outside the hospital. That plan probably looked more revolutionary from the standpoint of the hospital than from that of the teacher.

However that may be, the fall of 1920 saw graduated from the training schools all over the country 169 of the 435 young college women who entered the Vassar Camp. This is in itself a notable result. Of those young women about half will enter public health work, and the remainder will largely be divided among educational and administrative work in hospitals, foreign missions, and medicine. The influence of these young women will be far-reaching in the hospitals and health work of more than our own country.

It is quite possible, however, that another result of this camp may become even more important. This is its influence on methods of teaching in nurses' training schools. It seems probable that this will enter into and become a permanent procedure in the educational program of hospitals and certain colleges, notably junior colleges in cities with hospitals conducting training schools.

The application of this idea in the Junior College of Grand Rapids, Mich., was due to its president, Mr. Jesse B. Davis. Mr. Davis says in regard to this: "As far as I can remember the situation, the idea arose from a chance conversation that I had with Mr. Benjamin Merrick, while at lunch at the Association of Commerce, regarding the demand for nurses during the war, and the difficulties which he reported to me the hospitals were having in carrying on their training schools, due to the fact that so many doctors and nurses were leaving for war service. When I suggested to him that it might be possible for the Junior College to supply the academic work he was heartily in favor of the suggestion, and as a result a meeting of the head nurses and some members of their educational committee was called to talk the matter over at Blodgett Hospital. Although Blodgett Hospital did not enter upon the plan the first year, they all agreed that the idea was a practical one and that the experiment was worth trying out."

The idea found immediate favor with two hospitals, Butterworth and St. Mary's. Miss Elizabeth Selden, who was then superintendent of Butterworth, is entitled to much of the credit for the organization of the course, and the establishment of its ideals. She also worked out a program compatible with hospital administration.

The first plan was to have the girls sent from the two cooperating hospitals, Butterworth and St. Mary's, for four class hours a day, beginning at ten o'clock and closing at three o'clock. This necessitated a lunch hour with the nurses either taking their lunch in an already crowded school lunch-room, or returning to the hospital, or in some cases taking a lunch. The girls alternated academic instruction and hospital work, spending three days of one week at the hospital and two in school, and the next week reversing this to spend three days in school and two at the hospitals. By arranging the students in two sections the hospitals always had one group for work and the instructors had no vacant time.

This plan was followed for two years. The second year the numbers were increased by a class from Blodgett Hospital. The alternating days of study and practice were not satisfactory for many reasons. In some cases it left the student with curtailed study hours, or brought her to class after night duty when she was too tired and sleepy to give any attention to the work.

This year instead of alternating days and running courses through the year a plan known in the school as the "Parker Plan," from Dr. Parker, superintendent of Butterworth Hospital, its originator, has been followed.

It has been much more satisfactory to the students and teachers, and at least equally so in the hospitals. This is to give the instruction in morning and afternoon sections for one semester. One section comes at 8:30, has four classes and is dismissed at 12:10. The other section begins at 12:10 and finishes at 4 p. m.

The girls come four days a week, and with Wednesday off have time to get in their studying, do the required light hospital work, and are in better condition to get the academic work than when regular hospital work took their time and attention every other day. The work is intensive, and requires much care on the part of the teacher to see that only fundamentals are included, and constant attention on the part of the student to miss no point which is given. This should limit the size of classes, for eighteen to twenty students are as many as any instructor can teach under such conditions, with even laboratory work limited to an hour. Our classes are twenty-four to thirty, but this is too large to permit sufficient attention on the part of the teacher to the needs of each student.

Standard Curriculum Followed.

Subjects taught have included from the beginning: anatomy, and physiology, bacteriology, materia medica, dietetics, chemistry, hygiene and sanitation. No outline of the courses is included here because they follow the "Standard Curriculum for Schools of Nursing" as closely as conditions permit. During the first year an attempt was made to give some instruction in English, but the time for work was so limited that this had to be given up.

For two years materia medica was taught by a nurse instructor supplied by one or the other of the non-Catholic hospitals. Then it was taken over by a teacher in the department of biology, the department now having entire charge of the work. For a time anatomy was also taught by a nurse instructor, and dietetics by the teacher of household economics. As the work grew it was evident that if it were to succeed the subjects must be taught under conditions such that every subject could be made to supplement every other one. The teacher of chemistry, for example, gives the analysis of foods needed for dietetics; the physiological chemistry needed in anatomy and physiology; and the action of drugs and disinfectants applied in materia medica and bacteriology. As time offers opportunity, the various subjects will be more closely coordinated, for this gives the linking of theory and practice which fixes the fact in the student's memory for future use. Here, too, more than in any other phase of biological work, there is the constant illustration from hospital practice. Much bacterial material is supplied directly from the hospitals or the clinic laboratories of the city, and the study of the germ and observation of the patient may often go on at the same time.

Facilities Open to Hospital Students

Laboratories and other facilities for study are open to the nurses in training as to any other college student. The only difficulty is that the hospital student has not the time the other student has to make use of her advantages. A well fitted chemistry room provides sinks, apparatus, and chemicals for each student. Models, charts, demonstrations, and experiments are in daily use by all instructors. Autoclave, incubator, and media together with microscopes for each student and a demonstration microscope with oil immersion lens and Abbe condenser, permit bacterial investigation limited only by time for their use.

From the very first it has been the custom of the various hospital superintendents to make the divisions into sections on the basis of preparation. There are enrolled this semester fifty-two girls, whose preparation varies all the way from part college (or in one case full college work) to only an eighth grade certificate. While it is true that girls with only eighth grade preparation often show ability to study and great determination to get their lessons, they are handicapped by their limited knowledge of English and spelling, and after graduation are shut out from further training at the university.

A knowledge of how to study should be the acquirement of every pupil of our high schools, but it is very evident to teachers of these classes that part of the difficulty of almost every student lies in inability to go about studying without waste of time and energy. We endeavor to meet this by simple and constant directions as to methods, etc., but long-seated habits are hard to break.

Another interesting point concerning these girls is the great improvement shown by the later entrants over those who came in the war time classes. Very few students "leave training"—an event concerning which instructors early learned to display no curiosity—at the present time. Illness, almost without exception, is the cause of absence now. The improvement is due to the type of girl rather than to age, for out of the fifty-two girls, thirty are under twenty.

Since this paragraph was written the writer was told by a supervisor of one of the city hospitals that an entering class of thirty-three in one of the war years has now only thirteen of the original students for graduation.

In another hospital recent classes have established and maintained a flourishing mission band organization, and several girls have pledged themselves for foreign missionary work. These are very different from the girls attracted by the uniform and the excitement of war two years ago.

The Plan Satisfactory to All

The supervisor in one hospital says that of a class of twenty-four girls under twenty, she feels that their serious attitude toward their work and their responsibility on the floor, as well as the kind of work they do in the hospital lecture room, is due in part at least to the intensive training of the first semester. Medical directors, supervisors, and visiting physicians have expressed satisfaction with the results of the training.

In addition to the Junior College work, the girls take ethics and practical nursing in each hospital. This varies from fifty or sixty to ninety hours of additional class work. Hours of duty each week also vary from twenty-four to thirty-eight; St. Mary's asks five hours on school days, the other hospitals only two hours.

Like every other project it has its advantages and drawbacks. From the hospital standpoint the time needed by the nurses for dressing and going back and forth must be among the latter. One hospital reduces the time by the use of a motor bus.

The advantages are plain: classes are taught by trained teachers who prepare for each lesson and are not subject to call as are physicians. Then, too, the work can be coordinated as it cannot be among the members of a busy hospital staff. Classes in college are also larger than the hospital would carry.

Preparatory work in all hospitals is uniform, and there is enough of pride in each group to provide healthy competition. Time is saved, for work otherwise given in three different places is given in one.

Give me intelligent motherhood and good prenatal conditions and I have no doubt of the future of this or any other nation—Rt. Hon. John Burns.

A BAD SITUATION AND HOW IT WAS OVERCOME

By NANCY E. CADMUS, R.N., Superintendent, Manhattan Maternity and Dispensary, New York City.

Because of lack of space in the laundry to provide for the reception of soiled articles following deliveries, these same pieces had always been cared for under trying conditions in one of the rooms adjacent to the labor room, until by a happy inspiration an electric washer of a small, vacuum type occupying floor space about 30 by 30 inches was introduced. The motor is connected with the regular lighting current, the water (cold only) is introduced by hose permanently attached to the faucet, and the washer is emptied through a trap connected with the waste pipes.

This machine has also an electric wringer attached, and all parts of both this and the washer are either iron or zinc. The wringer, of course, has rubber rollers.

The introduction of this machine has done away with features that were trying in the extreme, and much of the work is done by the maid under the eye of the supervising nurse, as, like all machinery, it must be used intelligently. No device ever introduced has produced more satisfaction to us than this.

The above may sound as though I were advertising electric washers, but such is not the case, I am only throwing out a suggestion that may be of use to some other perplexed superintendent.

IS GROUP SYSTEM OF NURSING ONE SOLUTION?

In February, *The American Journal of Nursing* printed an extract from a letter of Sister Domitilla, St. Mary's Hospital, Rochester, Minn., which should be valuable to all those interested in the problems of nursing.

"In regard to the special nursing, we have always had a large number of patients who had special nurses. These nurses in most cases were on twenty-four hour duty. Last summer there was a great shortage of graduate nurses, and those we did have were clamoring for twelve hour duty. We felt they should have it, but at the same time it seemed almost impossible to grant it then. On analyzing the situation, it seemed to us that it was a great waste to allow a graduate nurse to limit her services to one patient, especially when the patient was not in need of the service. The result was the establishment of the group system of nursing. By this system, several nurses are organized in a group and they are held responsible for the care of the patients in a definite unit of the hospital. For example, in one unit there are ten private rooms, for patients who desire the services of graduate nurses. There are five nurses to care for these patients during the day and two to care for them during the night. The day nurses are on duty nine hours, the night nurses, twelve. They all receive a salary and board, but they secure their own room in the city. Each group manages its own affairs, such as hours off duty, day or night duty, etc.

"The system has been in operation since the first of September (1920) and has been most satisfactory. The nurses like the method, for it gives them shorter hours and a larger salary, and the work is far more interesting. We like it, for the large supply of nurses resulting from the plan makes it possible for us to eliminate the undesirable. It keeps everyone doing her best. Not all the nurses of the staff are on the group system, however, for there are a few patients who need or demand constant attention. Those patients are put in a certain section of the hospital and are given both a day and a night nurse.

NOTES FROM THE HOSPITAL LIBRARY AND SERVICE BUREAU

The Hospital Library and Service Bureau is now engaged in compiling a list of dispensaries and college infirmaries.

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The first meeting of the Chicago Society of Anesthetists, of which Dr. Isabella C. Herb is president, held its first meeting in the Hospital Library and Service Bureau on Monday, March 14.

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The Library recently received a gift from Mount Sinai Hospital, Cleveland, O., in the form of a book containing samples of all the record forms used in that hospital.

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The Library now has on file the plans of over 110 hospitals. These are available for examination to any who are interested in hospital construction.

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Since the first of January, over two hundred volumes have been added to the library.

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At a meeting of the trustees of the American Conference on Hospital Service, Dr. N. P. Caldwell was elected to take the place on the Library Committee of Mr. Homer F. Sanger, who recently resigned from the American Medical Association.

U. S. PUBLIC HEALTH SERVICE LEASES RUTLAND SANATORIUM

The model tuberculosis sanatorium nearing completion at Rutland, Mass., originally established by the New England Sanatorium Association has been leased for a term of years by the U. S. Public Health Service. Within two months it is expected that the sanatorium will be able to accommodate one hundred patients and it will ultimately care for three hundred. The plans under which the sanatorium is now being enlarged have been approved by the U. S. Public Health Service, and by the architect of the National Tuberculosis Association on duty with the Public Health Service. The finished building will be the last work in modern tuberculosis construction; the surroundings are ideal; and the tuberculous service men who will shortly fill this hospital will be assured of the best that modern science can provide.

ARMY SOLICITING NURSES

The Army Medical Department is soliciting applicants to fill vacancies in the nursing corps in the Army. Under an arrangement by which all applicants will be given a three years' course of training at the Army school of nursing, appointments from states east of the Mississippi River will be to the Walter Reed Hospital, Washington, D. C.; those from west of the river will be sent to the Letterman General Hospital, San Francisco.

MANITOBA HOSPITAL ASSOCIATION TO MEET LATE IN YEAR

The date of the Manitoba Hospital Association has not yet been decided upon, but it will probably be late in the year, shortly before or after the Manitoba Medical Association meeting. This arrangement will enable members from distant points to attend both meetings more easily.

Reason's whole pleasure, all the joys of sense
Lies in three words, health, peace, and competence.
—Pope.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

THE TEACHING DIETITIAN IN PUBLIC HEALTH WORK

By FAIRFAX T. PROUDFIT, University of Tennessee, Knoxville, Tenn.

SEVERAL years ago the need of someone to look after the nutrition work in the out-patient department of the hospital was brought so forcibly to my attention, that although my regular work has always been, and still is, the teaching of dietetics to nurses, I began to prepare myself for this additional work. I felt that my close contact with the nurses in training, and my classes of public health nurses, together with the work I could do in the dispensary, would give me an opportunity not only to make the course in dietetics more interesting to the pupil nurse while she was in training, but would also prepare her to enter the field of public health nursing, if she so desired, with a better knowledge of the various nutrition problems of the poor than she would otherwise be able to obtain.

It was proved to my satisfaction that the instructor in dietetics in the hospital was the logical one to undertake the dietetics in the out-patient department, that is, provided she did not undertake too many classes in the hospital. First, because she would then have the opportunity of gaining a keener insight into the needs of the patient before he became a ward of the hospital, and would thereby be in a position to give more intelligent instructions to the nurses in the care of such cases. And second, because concrete examples leave a more lasting impression than mere spoken words; thus a lecture on a certain nutritional disease may become a definite thing in the mind of the student if she sees it illustrated in the person of her own ward patient. So, I have this particular point of view, I do not mean to suggest that none other than the teaching dietitian is fitted for, or should aspire to, the post of public health dietitian, but I will say that in her the dispensary will find a willing and most interested worker.

This field is so extensive, and its interests so varied, that one can see at a glance what wonderful opportunities it offers to the highly specialized nutrition worker whose training makes it possible for her to select any one of half a dozen or more branches of work, any of which would repay her for her efforts.

Lack of Unity Felt Between Workers

We are all more or less familiar with the work done in the charity organizations, and that of the nutrition department of the hospital; we have seen the visiting housekeeper, the social service worker, and the hospital dietitian carrying out her daily round of duties, and it has been through the observation of these workers that the lack of unity and correlation between their closely allied subjects was discovered.

Each was doing fine work, fine in itself, but without relation to that of the other; each was traveling over a separate and distinct road, which never joined that of the other, consequently much valuable effort was lost. It was like a broken telephone wire which expends its force in the air instead of passing over one unbroken line to a definite point where it can be utilized to the best advantage.

Let us look backward a moment and watch the building of a new position, the tying up of the loose ends, the bridging of the gaps which yawned between the work of the visiting housekeeper, the social service worker, and the hospital dietitian, and the creation of a branch of dietetics which represents a unity of interests, a specialized training, and a definite effort to make the world better for its being.

First, let us take note of the factors which lead up to the growing need for the creation of such a position as that of public health or social service dietitian. Charity organizations realized many years ago the need for some specific action on their part to teach the ways or right living to the poor and ignorant of the community, in order that they might be a benefit instead of a menace, which they undoubtedly would be if left to their own devices. Vast numbers of immigrants were landing on our shores, whose knowledge as to the manners and customs, to say nothing of the laws, of the alien country was totally lacking. In the beginning, so long as these people did not stand in need of medical or material aid from the various organizations, they were left to find themselves. Each nationality naturally endeavored to settle where others of its race could be found, believing they could learn through them the ways of their newly adopted country. Unfortunately they found their neighbors, in many cases, as ignorant as themselves, and in following the line of least resistance, adopted bad customs without even being aware that they were bad.

The charity organizations met a part of this situation by sending out a visiting housekeeper, whose duty it was to show the women how to buy the foods that were cheap and good, instead of those whose virtue lay only in their cheapness. She was primarily a cooking teacher, not a dietitian. She went into the homes of the poor and ignorant to teach them how to prepare American foods in American ways. Unfortunately the teacher and those whom she was instructing did not understand one another.

The difference in language often formed an almost insurmountable barrier.

Frequently, through her ignorance of their manners and customs, she attacked old racial customs and disregarded religious scruples which meant the very sum and substance of life to them. What wonder, then, that she often created an antagonistic feeling against any other worker coming into the homes, a feeling which not only made her work harder, but has left a legacy of distrust which has been and still is difficult to overcome.

Another problem, even more vital, confronted this early worker, that of finances. The wages of the bread winner of the family had to be made to cover the expenditures. In families where there were a number of children, or the weekly wage was small, or in families where there was more or less sickness, this was manifestly impossible. The mother, the one whose business it was to spend the food dollar, did her best to make it go as far as possible; consequently she bought food that was filling, rather than that which was nourishing. The visiting housekeeper could do little to change things because she herself had not received the training which would make it possible for her to help that mother to spend the food dollar advantageously, not only from a standpoint of economy, but likewise from a standpoint of health.

Such training was unheard of a few years ago. Budget making has been a process of slow growth. Lack of money to spend on food has been and always will be an obstacle to right living, but the ever growing result of an inadequate and insufficient food supply upon the health of the world at large has made it necessary to devise some means to combat it.

Health Needed Adjustment

The third factor showing need of adjustment was that of health. There is not a city in the country whose health department and charity organizations have not been confronted with the difficulty of looking after those physical disturbances which not only affect the individual sufferer, but likewise menace the lives of all those about him. This is particularly true with the tuberculous patient.

The visiting housekeeper could teach the mother of the family how to cook, provided the family was in normal health, but she could not handle the health problem any more than could the social service worker; neither her training nor that of the visiting nurse provided for the recognition of symptoms arising from errors in diet, or disturbances caused by a lack of certain food elements. Hence their responsibilities ended when they had advised the patient to go to a hospital, and having accomplished this much, he passed out of her hands into those of the hospital officials, one of whom was the dietitian.

Now keep in mind that the dietitian knew nothing of the patient until she met him in the ward; she had no previous knowledge of his circumstances, or the causes which led up to his need for hospital treatment. She had neither time nor the opportunity for such investigations; her duty was to provide him with the special diet ordered by the physicians in charge.

But what of the patient? What was to prevent him from returning to his old mode of living, or taking up his old habits of eating, which were possibly to blame for his original disturbance? Something was obviously lacking, and some system of observation needed whereby such cases might be followed up; but, as the old proverb says, "What is every man's business is no man's business." Many a name was added to the long list of so-called "repeaters" which need never have been recorded a second time.

Thus it was made evident that someone was needed who, by reason of her special training, could act as a bridge connecting the in-patient and out-patient departments of hospitals and social service fields; one who would function in each, yet belong essentially to all. It is easy to see the importance of this position, and how difficult it would be to fill; but the situation has been met, and today it is the public health dietitian who assumes the responsibility of tying up loose ends and bridging the gaps which lie between these closely allied but heretofore widely divergent departments.

That such a combination of diversified work calls for special training is obvious. The individual assuming such a position will need not only her regular course in dietetics, but a course in social service as well.

It means going into training as a social service worker under the auspices of a well organized and progressive charity organization; it likewise entails a certain period spent in a hospital, possibly as a pupil dietitian, in case she has not already served a term in such an institution. And finally, it means the serving of an apprenticeship in the out-patient department of a large hospital, in order that she may become familiar with many phases of the subject which cannot possibly be obtained elsewhere.

The fact that watchful waiting is a part of the game makes it all the more interesting, since the waiting is for a chance to show her ability, and to prove herself indispensable to those whom she is endeavoring to assist. In order to do this, her training must bring her in contact with the people who come to the dispensary for treatment. She must win the right to advise before attempting to do so; she must familiarize herself with their many problems, and by gaining their confidence be in a position to help solve them.

When she finally reaches the portals of the dispensary, she will have become familiar with her people and be able to make clear many things which have in the past formed an almost impenetrable barrier between them and their necessary relief. Here in the dispensary her duties become more numerous and more concrete in form. She learns to weigh and measure patients, to take histories and compute dietaries. She also learns to keep the weight charts, and by observing the dietitian at work, learns how to give the instruction which forms such an important and inevitable part of her daily duties.

Here, too, she attends the metabolic clinics, and watches the various tests being given. She sees that the dietitian receives her directions from the examining physician, and afterwards goes with her into the home of the patient and watches her instruct that patient—or the mother of the patient—how to carry out the physician's orders correctly.

Out-Patient Work Very Important

I will not attempt to say anything in regard to the training necessary for the work of social service dietitian. The work in dispensaries is so vital, and the opportunities for service so limitless, that I will try to give some information in regard to it. The work in the out-patient department, like that of the in-patient department of a hospital, deals necessarily with the abnormal rather than the normal individual, but it is the part of the dietitian at work there to institute measures which will not only bring relief to the sufferer in question, but will also prevent a repetition of his trouble, and protect the remainder of the family from the results of careless or ignorant disregard of the laws of right living.

In the beginning it is well for the dietitian to keep in mind the recent creation of her position, and the fact that

she herself is consequently more or less on trial. She must not expect to have everything her own way at first, or to be consulted as often as she may feel is her due. She will frequently find conditions sadly in need of reformation and be tempted to upset everything in order to improve them, but unless she wishes to jeopardize her future usefulness in the dispensary, she must be willing to "make haste slowly," and to bring about the necessary changes gradually.

Dietitian's Work Divided into Three Types

To those who are not familiar with the inner workings of the out-patient department of a hospital, and of the nutrition work in particular, it may be of interest to hear how the duties of the dietitian are arranged.

There are three main divisions of work: consulting dietetics, clinical dietetics, and visiting dietetics. There is more or less clerical work connected with each. Much of this may be done by an assistant, but it is not wise to leave in the hands of an untrained worker the taking of the original history, since it is essential to be able to put the necessary questions in such a way as to gain all possible light upon the health and habits of the patient, in order to do him any material good in the clinic.

The majority of patients coming to the nutrition clinic for treatment and advice are sent in by one of the physicians in another department of the dispensary, but some come in on the advice of a friend who has been there before him, and has sung the praises of the place.

A thorough physical examination is required in each case. It may be that the patient requires surgical or dental attention in order that he may be free to gain in weight and health, it may be that his dietary habits are badly in need of changing, but whatever the results of the examination and tests, the findings and diagnosis of the physician are sent to the dietitian, who adds them to the record.

In the course of the examinations made in the nutrition and metabolic clinics, the dietitian endeavors to get as clear a picture of the life and home surroundings of her patient as possible; that is, she finds out how many there are in the family, how many rooms they occupy, whether these rooms are light or dark. She inquires into the kind of food they are in the habit of eating, and how often and regular are the meals. She makes an effort to find how much sleep the children get in twenty-four hours, and whether they drink tea or coffee. This examination is supplemented by a visit to the home, where she checks up the history of the patient by her own keen observation; in fact, it is the close attention to minor details which enables her to assist in the solving of the patient's problems.

Preliminary Instructions Given

After the examination of the patient in the clinic is completed, he is weighed and measured, and given such preliminary instructions as to what he shall eat, as is possible with the amount of data obtainable in so short a period of observation. He is told to return on a certain day and is then placed in the class where he can receive the instruction to cover his particular needs. He is not discharged from the dispensary until he has recovered from the disturbance which first brought him to the clinic and until his weight curve passes over the top of his normal weight line.

Probably the most interesting part of the work in the dispensary, to the dietitian, is found in the nutrition clinic. Here she comes in contact with the various types of patients, underweight and malnourished, some old and some young, some optimistic about themselves, and others despondent. Here she finds the ones who are willing to work for their health, and those who are not. I had an experience with the latter type when I first went into public health dietetics. The doctor had sent in a woman from the medical clinic with a card saying, "Feed her up, she is to be operated on as soon as she can stand it," and I, wanting to establish friendly relations, smiled upon her and said, "Good morning, how are you today?" She fairly screamed at me, "What do you ask me that for—you're the doctor, ain't you, you ought'er know." But it's all in the day's work, even this patient became amenable to reason as she found herself improving.

Nutrition Clinic Important

In the nutrition clinic, or the "What I Eat Class," as Miss Wood calls it, in the Boston Dispensary, the dietitian has an opportunity for individual work impossible to find elsewhere. She makes her own plans and carries out her individual ideas. She divides her patients into groups or classes. There are some classes for adults and some for children, and I may add that in the latter the dietitian finds solace for the frequent discouragements which are inevitable in the work with older patients. The directing of children along the pathway to health is indeed a privilege, and the public health dietitian cannot but realize her responsibilities when she sees the eager little faces before her.

When she goes into the homes and assists the mother in making the sick one well, and the well ones more comfortable, she finds many a chance to suggest changes and reforms in their mode of living, she can demonstrate the value of spending the food dollar in a way to get the maximum returns for the money, and in many ways show herself worthy of the trust which they, in time, will give her. I will not dwell upon this phase of the subject, but will say that it is a most serious part of the work of the public health dietitian, this spending wisely the food dollar, when one realizes that no mother will fail to economize on the family table when the rent is due or Johnnie's feet are on the ground.

Instructing Social Workers

Several years ago I was asked by the Associated Charities of Memphis to join their staff as a consulting dietitian. I was to give instruction to the trained social workers in the best method of improving the health of the families under their charge, through a supervision of the family budget. We had weekly conferences, twice each month I talked to them on the health problems which confronted them in almost every family, and the other days I discussed definite cases. There were colored as well as white social workers in the class, for the problems of the colored families were in need of even greater attention than those of the white race.

After a year's work in this capacity I found that comparatively little could be done without my coming in personal contact with the families themselves. For example, Lyda, our excellent colored worker, bewailed the fact that with one family in particular she was "not getting anywhere." She remarked, "I can't make Callie do what you say, and the baby is going down before my very eyes, I think she will die unless we do something to change things." So the next day I went out to see Callie and found a family of seven or eight, the father in the last stages of tuberculosis, all living in three small rooms, one of which was kept nice for company and unslept in. The sick child was receiving just what the rest of the family were getting to eat, including cabbage, fat meat, corn bread, and molasses, with coffee, but no milk in her dietary. This child was sleeping with the tuberculous

father, "because she kept the other children awake," and as the father was awake anyway it did not make any difference to him if she was restless.

When I asked the colored mother why she had not followed the directions sent her by me through Lyda, she said: "Lord, honey! did you send me that word to feed Kathene on milk and such like? Why I thought it was just Mrs. Bumpus telling me how to feed my child, and I knew she didn't know any more about what was good for her than I did; 'sides that, she ain't never had no children, how come she know about raisin' 'em?" I soon straightened her out and instituted changes which materially improved the health of the entire family.

This was just one example which pointed out the need for something other than desk supervision being given to the families under our care. The following fall I began a survey to find out just how much needed to be done, and the best way of bringing about the necessary reforms. With the social workers, I visited a number of families; the mother received a mother's pension, which helped, but could not by any means meet the financial needs of the family in question, it had to be supplemented by aid from the charity organization.

After several months' careful study of the families selected, I took the material collected, to the dean of the University of Tennessee Medical College, which is located in Memphis, and under whose auspices the out-patient department of the Memphis General Hospital was conducted, and asked him to look it over.

I made use during this preliminary study of portable scales, and could thus show the exact percentage of underweight which I found to be in at least 60 per cent of the children examined. I had been able to take most of these children to the dispensary for a complete physical examination, which also revealed a serious state of malnutrition and ill health. Many had subacute tuberculosis, the majority had adenoids and diseased tonsils, while there was scarcely a child in the entire lot who did not stand badly in need of dental attention.

The dean agreed with me that something should be done to improve these conditions, and when I pointed out the work being done in other cities in the nutrition and welfare clinics, both in dispensaries and in health centers, he suggested that I talk the matter over with the director of the out-patient department of the General Hospital, and the chief of the department of pediatrics, in order to devise a means of combating the existing conditions. This I did, with the most gratifying results. Both of the physicians recognized the need for definite nutrition work in the dispensary, and the follow-up work which we all believe to be an essential feature of the educational program, and I was given the position of director of the nutrition and welfare clinic.

The physicians were skeptical as to my ability to get the children to come to the nutrition class, or, having come, to attend regularly, but I am happy to say that the clinic was so popular that this year I am to have two rooms instead of one, and shall be able to have the colored children on the same days that I have the white ones. Last winter this was not believed to be advisable. We do not mix the races in the South, and there was not room for all, so that I did the necessary work with the negro children in their homes, going to them on Saturdays or after school on week days. I found this plan quite satisfactory, although it did require much more time than I could afford to give to it. Not only was I able to get at the dispensary children, but as a rule had a number from the neighborhood as well.

In my dispensary class the interest was almost universal as soon as the children realized that they were having to assume the responsibility for their future health. All of you who have done similar work know what it means to arouse the interest of a child and to hold it.

In my own clinic I interview each child as he arrives, I question him as to how he has followed the directions given him at the last meeting of the class. In some cases it has been found advisable to do this questioning in the presence of the rest of the children, thus bringing to light any discrepancies on the part of the one being questioned; if he chances to have a brother or sister in class, they will not fail to remind him that he is not telling the entire truth, and this acts as a lesson to the others. For example, the little Mexican, Henrique, did not drink his prescribed amount of milk or eat his regular allowance of oatmeal, and while he blithely announced that he had followed all directions and therefore earned the stars, his small sister loudly protested that he was not telling the truth. When Henrique stepped on the scales and found that he had lost weight, he looked very crestfallen, and his sister said: "There, I told you Miss Proudfit would know that you did not drink the milk she told you to." It is not always that Fate takes a hand in emphasizing such lessons, but this time I was truly grateful, because had this small but very observant youngster showed a gain, in spite of his falling from grace, I do not doubt that I would have had much to do to bring him to a realization of his shortcomings.

I found early in the year that the majority of those underweight children suffered, more or less, from constipation. Some of this trouble was undoubtedly caused by errors in diet, but much of it was directly traceable to carelessness on the part of the child in failing to go to the toilet and see that his bowels moved every day, or because the mother had failed to teach him in infancy to be regular in the performance of this essential duty.

The dietary was of course adjusted to meet this need, as far as possible, and the children were likewise given a ten minute period at the end of the lesson, of corrective gymnastics, not only to assist in overcoming the constipation, but to improve their posture, and show them how to breathe correctly. The children loved this period, which followed the health story hour, or the guessing games with which we used to impress the health rules.

Gymnastic Period Good for Children

I believe that this gymnastic period has a good psychological effect upon the children, making them feel that while they are having a good time they are also helping their body to do its part. Also, in carefully adjusting the exercises to meet the needs of each individual child, I overcome the constipation which so frequently presents one of the most difficult problems in the treatment of malnourished children. This opinion was corroborated by a specialist in tuberculosis, who watched the children going through the exercises. He told me I had found one way to insure a regular attendance at my clinics.

I changed the symbol to be placed on the charts for taking these exercises ten minutes each day, and instead of a star used a bright colored bird sticker; it worked like a charm. Seldom did I find a child who would not exert himself to win a bird. One little youngster exclaimed: "Gee, won't these birds look fine perched up there just like sparrows on a telegraph wire? I bet I'll have the fullest line of all in June," and he did.

My work with these children is elementary, I am only a beginner in child culture, but the work is so worth while; the influence which can be exerted to bring about

better conditions in the home, the wiser spending of the family income, especially the food dollar, the healthier and more normal attitude toward life which the dietitian can assist in bringing to the people under her care, makes this branch of dietetics especially interesting.

The opportunities open for the dietitian, especially the teaching dietitian, are many, but in my opinion, the one offering the greatest returns is to be found in the dispensary, the out-patient department of large hospitals. Here the work is undoubtedly hard, but the chances for individual constructive work so limitless that it will repay anyone with the will and vision to persevere.

It is not always encouraging, pioneer work rarely is, the dietitian entering upon this field will have to forge a place for herself. She will have to prove her worth before she can expect toleration, much less welcome, from the physician who has already given a lifetime to this department of public health. But having the training and the desire to work in cooperation with the physician, the student taking up this branch of dietetics as a profession will find it pre-eminent not only for the influence she may wield in the out-patient department of the hospital, but in the dedication of her life to humanity in the field of public health service.

HOTEL FIELD AND HOME ECONOMICS GRADUATES

By E. M. STATLER, President of Hotel Pennsylvania, New York, and of Hotels Statler Company, Inc., Operating the Hotels Statler in Buffalo, Cleveland, Detroit and St. Louis

IN NEARLY all the hotels of the country a considerable percentage of the employees are given their meals by the hotels. While in many cases this is not figured as a part of their salary, nevertheless the salaries of this class of employees are based upon the fact that they receive either meals or rooms, or both. It is a custom that has grown up with the hotel business, and whether it is a good or a bad practice has no place in this article. The fact is that the employees receive their meals—many hundreds of them, in the case of the large hotels—and they are apt to be somewhat exacting regarding the food that is served to them and the manner of its serving.

In the Statler Hotels in Buffalo, Cleveland, Detroit, and St. Louis, and in the Hotel Pennsylvania in New York, which is Statler operated, we have always tried to give to those of our employees entitled to meals the very best of substantial and wholesome foods. With the increases in the cost of food and with the various coincident increased costs, this practice grew to be even more of a problem last year than it had formerly been. It was particularly a problem in the Hotel Pennsylvania in New York, which, as the largest hotel in the world, has a greater number of employees than other hotels, and therefore a larger group to whom meals must be served.

There was the danger that with so many meals to serve to employees, inequalities would creep in, in spite of all efforts to keep them out, with a consequent dissatisfaction on the part of the employees. Either there would be too much sameness in the menus, or there would be too much of this and too little of that, or perhaps good food for which a considerable amount was expended would reach the employees in a way that was not tasteful or not right in some respect.

It seemed possible that a directing head for this whole activity might be found and the feeding of the employees set up as an entirely distinct and separate department where some of the principles brought out by trained dietitians could be well adopted. We were informed of the colleges where courses had been made a part of the curriculum for the training of young women in the field of home economics and dietetics. From a survey of the work done at these schools and a survey of our own particular needs, it seemed quite likely that a young woman so trained might be able to take care of this problem at the Hotel Pennsylvania, where we serve 2,100 meals a day to employees, and where, therefore, there seemed greater need for a directing head who had had this kind of training.

It was decided to experiment. A young woman graduate of the Home Economics Department at Cornell University was called in to take charge of what, for lack of a better name, we call our dietetics department. She found that there were four dining rooms for our employees, each of which took care of a different class of workers. The executives and higher officers of the hotel are not included among them, as these executives have their meals in the guests' dining room and their number is considered entirely apart from the considerations of this article. She discovered also that the employees who, as said above, receive a total of some 2,100 meals a day are what is known as "good feeders." And to take care of the different watches—that is, those who came on and went off duty on the different shifts—it was necessary to have five meals—breakfast, lunch, dinner, night supper, and a night lunch.

To furnish substantial foods in plentiful quantities, and menus so ordered as to take care of the needs and wants of all, presented the first and perhaps the main problem. Out of it was worked, however, a department for the feeding of our employees which seemed to give thorough satisfaction to them, with practically no complaints, and which, because of the satisfaction it gave to them, was very pleasing to us. We like to feel in the Hotel Pennsylvania and in the Hotels Statler that our employees are contented. A contented employee helps in giving service, and, as I have said many times, the essential thing that a hotel has to sell is service.

So, because of the way in which this department proceeded to care for the meals of our employees, in a way that made them contented, satisfied, and happy, we were led to believe that we had discovered a good thing. While the department was still developing, its original head was taken ill and subsequently was compelled, because of continued illness, to retire. A young woman similarly trained in the Home Economics Department at Cornell succeeded her and the work, under her charge, has since been developing gradually along the lines planned.

In feeding our employees about four barrels of potatoes are used daily; about sixty to seventy pounds of butter; about 110 gallons of milk (our dietitian being a thorough believer in milk as a food, allowing employees to drink as much as they wish); and when the menu includes roast beef, roast pork, or smoked shoulders, there must be bought about three hundred pounds of clear beef, or three hundred and fifty pounds of pork, or three hundred and fifty to four hundred pounds of roulettes. You see, with other things bought in similar quantities—and of course I have instanced only a few—there is rather a

heavy burden of responsibility on the shoulders of this department head. And there is always this thought: that our employees must be well fed, that they must be contented with their meals, and that costs must be kept down as far as possible. We do not believe in niggardliness, but, on the other hand, we thoroughly disbelieve in extravagance.

Since the development of this scheme of dietetics at the Hotel Pennsylvania, we have engaged home economics trained women and placed them as dietitians in charge of the food of the employees at the Hotel Statler in Detroit and the Hotel Statler in St. Louis. Plans are under way for extending the system to all of our houses. I am informed that other hotels in New York are planning to adopt the system in which we have blazed the trail.

This should be its own best answer to the question that has been asked me as to whether or not there is a place for the home economics trained women in our large hotels. And there is seemingly no reason why the opportunity should be closed here. There is no reason why a woman so trained could not be used as purchasing agent in some hotels, or as receiving clerk, or in even other capacities. If other hotels find it worth while to adopt our system after watching what we have done with it, there is good reason to believe that they may find that it furnishes a very wide field for using the services of the graduates in home economics.

And there is this thought, too: We Americans do not, as a rule, pay enough attention to diet. We eat too much, or we eat things that do not agree with us. Most of us overlook the importance of bran or whole wheat as a part of our regular diet. It may be possible that the graduates of a systematic and thorough course in home economics will do a great deal toward bringing about a greater general appreciation of the importance of diet, and that they may find a very wide field, indeed, for their activities.

NEWS ITEMS

Miss Marie Greene has left the Samaritan Hospital in Philadelphia, to become dietitian of St. Joseph's Hospital in Reading, Pa.

Miss Katherine Babcock, who had student dietitian training at the Minneapolis City Hospital, is now at the Iowa Lutheran Hospital, Des Moines, Iowa.

Miss Ruth Landel, who has finished her student dietitian training at Jefferson Hospital, has accepted a position as resident dietitian at Altoona Hospital, Altoona, Pa.

Miss Beatrice Roach is developing a department of dietetics at the Jamaica Hospital, Jamaica, N. Y. Miss Roach was dietitian at the Ithaca City Hospital at one time.

The regular monthly meeting of the New York Association of Dietitians was held at Osborne Hall January 26. Miss St. John spoke on "Business Administration of Institutions."

Miss Elsa Delmas Curry, who was for some time dietitian at Greenpoint Hospital, Brooklyn, was married to Dr. Warren Conrad Fargo. They will live at 2781 Euclid Heights, Cleveland, O.

Dr. M. H. Lewis, medical director, West Philadelphia Hospital for Women, advises us that Miss Anna Howell, a graduate of Drexel Institute, has been selected for the position of dietitian in this institution.

Miss Helen Pond, formerly dietitian of the Jewish Hospital, Philadelphia, is now in Palm Beach, Fla., as manager of a tea room. This tea room is on a house boat and this alone would insure its attractiveness.

Miss Mary L. Sedgwick has completed the pupil dietitian training at Cook County Hospital, Chicago, and is being retained as assistant to Miss Breta Luther. Miss Sedgwick is a graduate of Milwaukee Downer College.

Miss Bess Tews of Stewartsville, Minn., has gone to California, where she has charge of the educational work for the Sperry Flour Company. Miss Tews has established schools in Los Angeles and is now in the southern part of the state.

Miss Lillian Kohman has accepted the position of dietitian in the Bismarck Hospital, Bismarck, N. D. Miss Kohman was previously a teacher of home economics, later taking training as student dietitian at Presbyterian Hospital, Chicago.

Miss Helen Blodgett has finished the course of training for student dietitians at the Jefferson Hospital, Philadelphia, and is staying on in this hospital as Miss Gladwin's assistant. Miss Blodgett is a graduate of the home economics department of the New York State College of Agriculture.

Mrs. Mary Pascoe Huddleson, formerly with the Edison Electric Appliances Company in New York, is now chief dietitian in charge of the nutrition work for the New York County Chapter of the American Red Cross. Mrs. Huddleson has some very interesting problems, as the work covers a very broad scope and offers excellent opportunity.

The Syracuse Hospital for Women and Children, Syracuse, N. Y., has recently established a diet kitchen for special diet service. Miss MacDill, the superintendent, and Miss Kuch, the dietitian, have just cause to be proud of the results they have obtained in transforming a room which was used for an entirely different purpose into a very satisfactory kitchen.

The dietitians' section of the Home Economics Association of Philadelphia met on January 27 at the Pennsylvania Hospital. Miss Sara Murry, state instructor, and Miss Roberta West of the state board of examiners, spoke on "State Board Requirements in Dietetics for Nurses." It was a most successful meeting. This Association contributed $50 to the fund for starving children in Europe.

The Rochester is the name of the hospital which was recently opened by the Mayo brothers for metabolic work. Miss May Foley, formerly at Massachusetts General Hospital, is head dietitian; Miss Malm, a graduate of the University of Wisconsin, is her assistant. Miss Malm took the student dietitian training course at Massachusetts General, her particular responsibility is the dietary work in the Stanley Hospital.

The Chicago Dietetics Association met at the Chicago Beach Hotel, January 24, at 7 p. m., for the annual banquet and election of officers. Twenty-eight members and guests were present. Following the dinner the Association was entertained by Miss Ella Harrison, who played two piano selections, and Dr. George L. Scherter, professor of history at Armour Institute, who talked on the subject, "You and Your World." At the business session, the election of officers resulted in the following staff for the year 1921: Miss Esther Ackerson, re-elected president; Miss Anna Boller, vice-president; Miss Breta Luther, secretary; Miss Rose Straka, treasurer. Miss Eleanor Ahern will continue to act as publicity chairman, but heads of committees will be chosen by the executive committee at its first meeting.

At the meeting of the executive committee of the American Dietetic Association, held in New York, February 5, 1921, it was decided to hold the next annual meeting at the Hotel La Salle in Chicago, October 24, 25, and 26, 1921. The officers of the Association for this year are:

President, Mrs. Mary DeGarmo Bryan, 626 Bergen Avenue, Jersey City, N. J.; first vice-president, Dr. Ruth Wheeler, Goucher College, Baltimore, Md.; second vice-president, Rena Eckman, University of Michigan Hospital, Ann Arbor, Mich.; secretary, E. M. Geraghty, 801 South Wright Street, Champaign, Ill.; treasurer, Ellen Gladwin, Jefferson Hospital, Philadelphia, Pa. Dr. Ruth Wheeler is chairman of the section on education; Rena Eckman is chairman of the section on dietotherapy; Lucy Gillette, 105 East Twenty-second Street, New York City, is chairman of the section on social welfare; and Mary Lindsley, 62 Early Street, Morristown, N. J., is chairman of the section on administration. All members of the committee were present at this meeting, also Miss Lulu Graves, honorary president of the Association.

ONE WAY TO SOLVE THE QUESTION OF DISCIPLINE OF INTERNS

By JESSIE HORN, R. N., Superintendent, Ryburn Memorial Hospital, Ottawa, Ill.

I never could understand why an intern should be considered such a fearsome creature. Most interns were very decent boys before they became interns, and most of them are going to become responsible and honorable men as physicians. Why is it necessary to assume that an intern, as such, is utterly irresponsible and untrustworthy?

Take the matter of association between interns and nurses. Interns and nurses perhaps come from families which have been friends for years. At any rate, they come from the same social strata, and social intercourse between these young men and young women would be regarded as entirely innocent and natural if only they were not interns and nurses. Isn't it putting a premium on wrong doing to assume that, because they associate professionally, all other association is improper and reprehensible?

I once became superintendent of nurses in an institution where there had been much trouble over this very thing. I said to the superintendent: "I believe that the trouble is with the rule against association between the interns and nurses. If a man is not fit to associate with the nurses, he is not fit to be an intern. Are you willing to support me in abolishing the rule?"

He said: "Go ahead; I am with you."

I called the interns together and told them that I believed they ought to be able to associate with the nurses without any harm to either. I was willing to let them meet the nurses socially out of working hours provided their behavior was such as would be expected of any gentleman. I would permit them to invite the nurses out in the evening provided they would bring the girls back at proper hours. I would allow them to make calls at the nurses' home provided they would go at ten o'clock. "But," I said, "I don't want any unnecessary conversation with the nurses during working hours, not for fear of any impropriety, but because they cannot be doing their work while they are talking to you."

The new plan worked like a charm the whole time I was connected with the institution. I continued it in force when I became superintendent instead of superintendent of nurses. The flavor of forbidden fruit was gone now that there was no need to steal opportunities for meeting the nurses. The interns themselves would tell me at the dinner table of the day's happenings. I would go into the nurses' home in the evening and find a group of interns clustered about the piano singing. There was no self-conscious, embarrassed stir when I came in, and I never had to tell them when it was time to go home. Once I did have to tell two medical students to leave a nurses' party, and I have had to deal with a tricky pupil nurse, but this was not because they were interns and nurses, but because, among many young men and young women, there are sure to be some who fall below the standard set for them. As a whole, they justified the trust placed in them.

As for interns' pranks—once my interns raided the ice box and stole a roast chicken that had been prepared for a patient. I didn't take it up with the disciplinary committee. I ignored the matter until next day at breakfast, when I said:

"You boys oughtn't to be hungry today. I don't believe you enjoyed that chicken as much as you thought you would. I know you didn't, if you realized how much trouble you made me. I got another chicken and roasted it, but that isn't going to make things right with that patient. She is always going to remember it against the hospital. Now, I am not saying this because I don't want you to have what you need to eat. If you're hungry, tell me, and I'll send sandwiches and milk to your rooms. But I wish you'd let the ice boxes alone, for, if you don't, the patients aren't going to get what they need."

Every one of those boys came around and in a shamefaced way told me he hadn't meant to make me trouble. As for the food—they didn't want it—hadn't wanted it; all that they had wanted was a little fun, and now raiding the ice box had ceased to be fun.

So, to my mind, the problem of intern discipline solves itself with the use of a little faith, tact, and good humor. After all, an intern is only human!

OPENINGS FOR DIETITIANS

Opportunities are now open in the hospitals of the United States Public Health Service for the employment as dietitians of many women graduates of schools of household economics who have had student training or hospital experience in civilian or army hospitals. The work, which has to do with planning the food of the hospitals, was transferred a year ago from the pharmacists to a newly established dietitian service. The section has steadily expanded, but owing to the opening of many new hospitals and the enlargement of those already in operation, the dietetic personnel is as yet not nearly up to the requirements. Applications for appointment should be made to the Surgeon General, United States Public Health Service, Washington, D. C.

JOURNAL OF PSYCHOLOGY TRANSFERRED

The *American Journal of Psychology*, which was established in 1887 by Dr. G. Stanley Hall, and has since been edited by him, has been taken over by certain members of the department of psychology of Cornell University, and Professor E. B. Titchner will hereafter be the editor.

TYPHUS MAKES STRICTER EMIGRATION LAWS NECESSARY

Emigrants awaiting transportation from Trieste, the source of many cases of typhus brought to this country, are being kept under the strictest observation for twenty-one days before sailing. This stringent inspection seems to have arrested the spreading of cases from this city. Ex-Surgeon General Rupert Blue held a conference recently, with the heads of the steamship companies in Paris, which resulted in the adoption of strict regulations with regard to emigrants leaving all European ports.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

By CHARLES L. HAYS, Chicago, Ill.

WHATEVER improvement in business is to be noted this month is in sentiment rather than activity. The general feeling undoubtedly is one of more confidence, because of the belief that the worst of the readjustment process has been passed, but there are many wounds to be healed, and recovery necessarily will be slow.

Retail trade in March was a little slower than at the beginning of the year, but the Easter turnover was satisfactory. Clothing demand of the late winter slackened, partly because of continued mild temperatures, and partly because of unemployment. A sluggish movement of household furnishings reflects the almost complete stoppage of building due to high prices, especially of labor.

Wholesale orders are only 10 or 15 per cent below those of the corresponding time last year, notwithstanding the decline in prices, which would more than make up that difference; but merchants are buying in small quantities and frequently, still being shy of distant commitments. Prices of most textiles are steadier, and the tendency in some lines in which a moderate shortage has developed, notably the better known brands of sheetings, muslins, and ducks, would be upward but for the fact that trade sentiment is strongly against such a reaction. Fall lines of woolens have been opened at prices about 40 per cent lower than last year.

The security markets continue to be depressed by the close credit situation and the unsettlement in Europe. The needs of corporations for new financing have pressed on the market many new issues, bringing about a state of oversupply. This has held back any improvement in even the highest grade investment securities. Liberty bonds, now selling at prices to yield the investor 4.6 to 5.8 per cent, are regarded by conservative observers as offering an exceptional opportunity for the safe placement of funds at a good return, and in addition as presenting the possibility of a substantial profit from an increase in price as the result of refunding operations of the government. These are believed to be in contemplation, although they may not be undertaken until just before the maturity of the Victory note issues. Some of the best new issues of railroad and utility corporations afford chances for the investment of funds at a yield of 6.5 to 7.25 per cent for ten to twenty-five years, a term which seems reasonably sure to carry the investment over a number of years of interest rates much lower than those now prevailing.

Labor conditions are causing no trouble except in the railroad and building fields. In most industries wage reductions are being accepted willingly, and in some, resumption of operations is reported. The railroads, with traffic reduced, are cutting down working forces, and are taking decisive measures to bring about a modification of wage scales. Building operations are at very low ebb and there are no indications of progress toward a settlement of the differences between contractors and the labor unions. There have been further reductions in prices of materials, of which lumber, now off 40 or 50 per cent from war levels, shows the greatest downward revision; but brick quotations are maintained and steel has been lowered but little. In the aggregate, costs are not materially reduced, with labor holding out for $1.25 an hour and the prospect for extensive construction work in the spring is not encouraging, despite the desperate housing needs.

The decline in food prices continues. A drop of 3 per cent in January as compared with December is shown in the latest statistics of the Department of Labor, and since then there have been further reductions. In these statistics twenty-seven of the forty-four articles on which prices are reported show decreases, of which the following were the greatest: fresh eggs, 14 per cent; lard, 13 per cent; rice, 10 per cent; sugar, 8 per cent. Articles which increased in price included pork chops and cabbage, 9 per cent; lamb, 4 per cent; rib roast, 3 per cent; sirloin and round steak, chuck roast, plate beef, and flour, 2 per cent.

In the last month potatoes have advanced from the low of around $1.00 a bushel, to $1.20 or $1.35. In the same time the sugar market has been steadied by the perfecting of an arrangement for centralized marketing of the Cuban crop, and the whole price has advanced to eight cents a pound, compared with a low of 6.65 cents a few weeks ago. On the other hand, butter is about five cents a pound cheaper and the market has been weakened by extensive importations, while fresh eggs are six to eight cents cheaper because of increased supplies due to mild weather. Cereals have been brought more into line with the drastic declines of the last six months in prices of all the important grains, and now show substantial reductions from last year's high figures, particularly for bulk goods. Foods as a whole have receded to the approximate level of February, 1917.

House furnishings are still 25 per cent higher than when the armistice was signed. There are few articles in which downward revision has made less progress than beds and similar furniture. The fact that steel prices

were maintained long after material reductions were made in almost everything else accounts in part for this fact; but conditions are only a little better in manufactures of wood. Bedding, outings, and other cotton products have come down materially with the drop in raw cotton, and any change in the near future seems more likely to be in the direction of firmness than weakness.

Drug prices have been further reduced, and in some cases represent values below production costs. This is shown by the fact that some resale offerings are being taken by producers. Acetanilid is a case in point. Potassium iodid is down to $2.60 a pound. Quinin is firmer around seventy to seventy-two cents. In the bismuth group a reduction of thirty to forty cents a pound has followed a sharp break of seventy-five cents in metallic bismuth. Ether is steady at twenty-five to twenty-six cents. Absorbent cotton and gauze have steadied after two drops of 10 per cent each since the first of the year under the influence of offerings of war department surplus supplies.

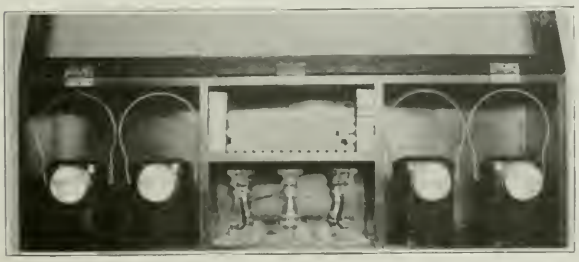
Crude rubber recently touched the lowest price of the season, with smoked ribbed sheets at sixteen and a half cents. Since then there has been a recovery to eighteen cents, but the movement is small and buyers show little interest. The reduction in the price of crude rubber has not as yet been reflected by any considerable reduction in the price of rubber sundries used in hospitals.

Paint and varnish prices are pretty well held, in spite of the fact that demand is very slow because of the small amount of new building. The principal market weakness is noticeable in raw materials, especially linseed oil, which is quoted at sixty-nine to seventy-two cents, wholesale; white lead thirteen cents, and red lead fourteen to fifteen cents.

In spite of the mild winter and the abundance of supplies, the coal consumer has derived little benefit in the way of cheaper fuel. Production has been curtailed to about 50 per cent, and prices have been maintained with the exception of occasional weakness caused by distress selling of coal. This has been principally in steam grades and has not affected domestic coal. There seems little reason to doubt that these conditions will continue, and any material reduction later in the season is not to be expected. The usual placing of spring contracts, therefore, probably will be advantageous. Labor costs are not likely to be lowered, nor are freight rates; and an increase in industrial demand, which is likely to come at any time, would soon bring about a condition of short supplies and perhaps a return to delayed deliveries.

SAFEGUARD YOUR HOSPITAL WITH AN EMERGENCY LIGHT CABINET

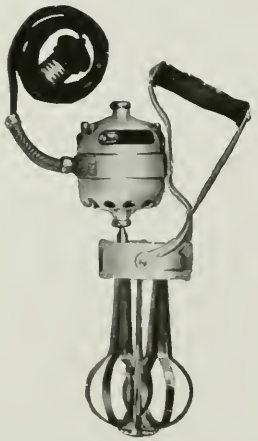
The management of the Monticello Hotel, Norfolk, Va., has recently devised an emergency light cabinet that should appeal to all institution executives. The cabinet as made for the Monticello Hotel, matches the surrounding wood trim and is divided into compartments, in which are kept electric lanterns, candle sticks, candles, and matches. The cabinet as made for them is forty-seven inches long, fifteen inches high and nine and one-half inches deep.



Modern hospitals, whether generating their own lighting power or purchasing it from a service plant, do not often require emergency light. There are times, however, in the experience of all hospitals when a temporary failing of all of the ordinary sources of light makes a lantern or candle an extremely useful article. At such times it is very important that the emergency lighting equipment be instantly available, and the cabinet as suggested would insure this emergency safeguard.

AN ELECTRIC EGG BEATER AND LIGHT MIXER

For some time there has been a need for an electric mixer or egg beater of small size to take care of the lighter operations not requiring the use of the large mixing machines, particularly in smaller hospitals. A new device recently introduced seems to fill this need. It consists of a double whip of the well known Dover type to which is attached a small electric motor. The outfit



is light and easily handled and should be very useful in the preparation of light batters, such as waffles, sponge cake, omelets, fritters, griddle cakes, soufflé, sauces, icings, and innumerable other cooking recipes where thorough mixing or beating is required. Naturally, this electric egg beater will not take the place of heavy duty machines, but rather fills the gap in making small batters, desserts, etc. The complete outfit weighs but two and three-fourths pounds, and is manufactured in two sizes, one for distinctly household or diet kitchen use, and the larger or commercial size, with seven inch blades, suitable for hospital requirements.

This new mixer should find a place in ward or diet kitchens as well as the general kitchens of many institutions.

Physiological experiment on animals is justifiable for real investigation, but not for mere damnable and detestable curiosity.—Darwin.

REDUCING INSTITUTIONAL FOOD COSTS

By MARGARET HOOKER, Domestic Science Supervisor, State School for Girls, Adrian, Mich.

THE reducing of institutional food costs, naturally, begins with the purchase of food materials. It isn't always wise to buy at random at any time or place that materials are the cheapest.

The time to buy food is a difficult problem at present, for we do not know whether this steady decline in prices is going to continue or not. However, when prices do come down to a place where it is almost certain they cannot get any farther, it would not be a bad idea to lay in a large stock of staple goods. Eggs, of course, should be bought in the spring and kept in cold storage. The best time to buy butter is between May and July, this also may be kept in cold storage. The tuber vegetables, as potatoes, carrots, beets, turnips, and cabbages, should be bought in the late fall and kept in a root cellar for the winter months. If the institution has facilities for canning it is well to preserve as many summer fruits and vegetables as possible.

The place to buy foodstuffs is very important. If a good miller is in your locality, buy flour of him in preference to a wholesaler, as he will give you just as low a price, if not lower, than the wholesaler, minus freight charges. A protection against the fluctuating prices is the fact that flour is usually contracted for. This method of buying can be practiced with nearly all other commodities. In buying goods this way, the purchaser may become acquainted with the kind of goods he is buying. He can at any time go into the mill or cannery and look over the raw materials and also know the method of preparation.

Perhaps the highest paid and most competent help is always placed in the kitchens in any large institution, for upon them rests the welfare of all persons concerned. The thorough and correct preparation of food, avoiding all unnecessary waste, is of utmost importance. And along with this comes the proper use of left-overs, which is an art in itself.

When labor is high, sometimes it is best to buy food which is already prepared, or requires little labor to prepare. The most striking example is bakery goods. If there is a bakery in your locality, it would be well, after becoming thoroughly acquainted with its kitchens, type of help, and sanitary conditions, to contract for its goods.

The points in this and future articles will be familiar to those who are in this particular line of work, but oftentimes some of the seemingly small details in institutional food problems are neglected. The series of articles on this subject will attempt to deal with the various kinds of food as shown in the following outline, taking them up from the points of view indicated in I-VI.

I. When and where to buy foodstuffs.
II. Selection.
III. Storage.
IV. Careful preparation.
V. Uses of left-overs.
VI. Buying prepared foods vs. the raw product.

Classification of Foods

I. Fresh foods:
  A. Meats, poultry, smoked meats.
  B. Creamery products, butter, eggs, cheese, butter substitutes, milk.
  C. Perishable fruits and vegetables.
  D. Tubers.
II. Staple foods:
  A. Package goods.
  B. Bulk goods.
  C. Canned goods.
  D. Dried fruits and vegetables.

Beef Probably Cheapest Meat

In purchasing meat for a large group of persons, beef is perhaps cheaper and more easily utilized than any other kind.

The United States Government found it necessary in 1906 to pass a law that all meat sold in interstate or foreign commerce should be examined by Federal authorities. Meat, of all foods, is the one most subject to conditions making it unwholesome or even dangerous. For this reason you should look for the stamp which reads "Inspected and Passed," and which is very evident on all meat that has come up to the conditions required. If buying from a small retailer or farmer, ask for his certificate, which he should have before selling any meat.

If such a large quantity can be used, buy a side of beef at a time or a fore or hind quarter. The fore quarter is of course the cheaper. The beef should be firm and of a fine grained texture. It should be a good red color and well mottled with fat, which should be firm and a creamy white color. The accompanying suet should be dry and should crumble easily.

Have an experienced person to cut up the beef and see that the cuts of beef are used where they are most needed. For example, don't send a choice rib roast to a department where a part of the chuck could be used just as satisfactorily. The same is true in buying, if the beef is not bought in the large quantity, order from the butcher a cheaper cut when it can be utilized just as well as some more expensive one. Be sure that the porterhouse steaks are going to be used for what they were intended, and not to be pounded and ground with extra seasonings, as there are enough of the tougher cuts for this purpose.

In buying beef in this manner you can get it at an average cost, and if a contract is let, there will in time be a large saving.

Keep the beef in a room about forty degrees Fahrenheit, or even lower. After it has been cut up, sort, keeping the soup bones, steaks and so on, in separate pans or compartments. Have a set of scales to weigh the meat so that accurate account of it may be kept, and also what kind is sent to each department. If there is just the one kitchen, the statements from the butcher will usually serve the purpose.

Careful preparation of beef is of the utmost importance. There are two general classes of meat, the tough and the tender. The tough cuts are as nutritious as the tender, but it requires more skill to make them palatable. The meat juices should be retained in the beef, unless it is desired to extract them for soups. This is accomplished by searing over the surface at the beginning of the cooking period. The searing may be done in several ways, but the usual method is by plunging the meat into hot water, or by placing it directly over the flame on the top of the stove. Always wipe the surface of the meat with a dampened cloth, never wash it under the faucet.

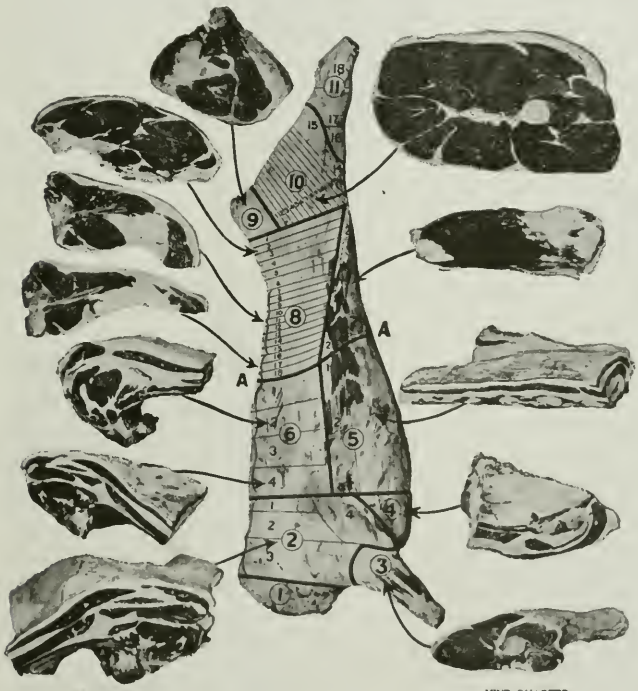
*This is the first of a series of articles by Miss Hooker, on "Reducing Institutional Food Costs," which will appear in THE MODERN HOSPITAL.

The tender cuts are porterhouse, sirloin, cross-cut of rump, and the second and third round steaks. Steaks are usually cut from one to two inches in thickness. Intense heat is needed for broiling. After the meat has been quickly seared, the temperature should be lowered during the remainder of the cooking. Avoid turning the meat too often or piercing it with a fork, as the juices are lost in this way. The best cuts for roasting are the rump, the first three ribs, and the middle of the sirloin. Sear each side of the roast under a flame, add seasoning and finish the cooking at a lower temperature. Roasting meat is usually accomplished by placing it in a roaster and baking in the oven. For rare meats, do not place cover on roaster; well done roasts may be cooked in an open roaster, basting every ten minutes. The length of time for roasting depends upon the weight of the roast, usually about twelve to fifteen minutes to the pound.

The tougher cuts contain more edible portions than the tender cuts, but are not so palatable. One way by which a tough cut may be made more tender is by rubbing it with a small amount of baking soda, vinegar, or lemon juice and allowing it to stand one-half hour before broiling; this is best practiced in the case of tough round steak. Other ways are by long, slow cooking in a moist temperature, and by pounding with a sharp instrument to break down the fibers. In using the tough cuts for stew, sear the meat after it has been cut up in small pieces, then plunge into hot water for long, slow cooking. The tougher roasts, average weight about four to six pounds, should first be seared in a frying pan, then placed in a sauce pan, with one cup of boiling water, covered closely and cooked slowly until tender. Only enough water should be added to keep the meat from burning. Season it when nearly done, and add water to remaining drippings and thicken as desired.

The parts of the beef best used for soup making are, knuckles from the round and fore shank, middle cut and hock on the hind shank, the middle cut and end of the fore shank. Left-over meat, such as tough ends of steaks, or meat that has been previously cooked but not utilized in any way, can always go into the soup kettle. Be careful, especially when cooking in large quantities, about what goes into the soup kettle, as the repeated heating and cooling of the meat and broth furnish excellent conditions for the growth of harmful bacteria. Soups made from meat obtain their flavor from the meat extractives, which are stimulating but have almost no food value. The meat left from soup making is tasteless, but still retains by far the greatest part of the food value.

To make soup, wipe the meat with a damp cloth, cut it in pieces and crack the bones. Place the meat, bones, marrow, and sometimes left-over ham or bacon, in a large kettle with a close fitting cover. Add one pint to one quart of cold water to each pound of meat, depending on the richness of the soup desired, allow this to stand one-half hour, then heat very slowly to the boiling point, add salt and other seasonings. The soup should simmer slowly from three to eight hours. If vegetables are to be added, don't allow them to cook too long, as long cooking destroys their flavor.



Other additions to soup are noodles, rice, macaroni, and pearl barley. If the stock is not to be used immediately, do not remove the fat, which will form in a hard layer on the top and act as a preservative. To remove the fat, if the stock is to be used at that time, skim as much as possible off of the top with a skimmer, and the rest with a piece of ice wrapped in a cloth, the fat will readily adhere to the cloth. A good color in soup is due to browning some of the meat before adding it to the stock. Some other uses for soup stock are, seasonings for meats, sauces and gravies, aspic jelly for salads, and vegetable casserole dishes.

There is always bound to be left-over meat, such as the extra allowance which was cooked but which it was not necessary to serve. Meat which has been cooked too long is not very healthful, so in making left-over dishes a thorough heating is all that is needed. To prepare meat, it should be ground fine or sliced very thin. Some of the best uses for left-over meat are casserole dishes, usually with an addition of some carbohydrate food, croquettes, meat loaf, meat or cottage pie, minced on toast, warmed in gravy, salad, soufflé, hash, scalloped, and creamed on toast. With a little skill and practice, these dishes can be made very palatable and attractive, perhaps even more so than the original product.

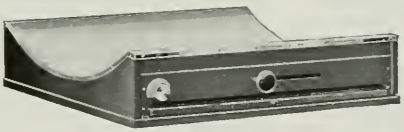
Another valuable by-product is the

fat, also a large amount of suet and trimmings from the steaks and other cuts. These may be collected and melted in a large kettle. Some fats have a higher melting point than others, but this will not make a marked difference. If the fat is to be used for cooking, strain through a double cloth into another kettle, then pour in some boiling water. Allow this to cool, then the fat will rise to the top in a large cake, with the impurities on the outside, which may be easily scraped off. To remove objectionable flavors, melt the fat and put in thick slices of potatoes. Allow to cook until the potatoes are brown, then strain. This fat may be used for deep frying or almost anything for which cooking fat is used. Sometimes a pinch of baking soda will keep the fat sweet. If it becomes too hard it may be mixed with lard or vegetable oils.

Another excellent use for fat is in soap making. The soap made from drippings is far superior to any other kind. Dissolve one and one-half pounds of lye in four pints of cold water, when it has cooled add it to ten pounds of melted fat to which has been added two tablespoons of borax and one cup of ammonia. Stir until thick. Pour into enamel pans or wooden or pasteboard boxes lined with oiled paper. Do not use tin pans. Cut into bars as soon as it is hard enough and set away to harden, which will take about a month.

THE POTTER-BUCKY DIAPHRAGM FOR USE WITH X-RAY APPARATUS

Hospital roentgenologists will undoubtedly be interested in the Potter-Bucky Diaphragm which is one of the newest improvements in x-ray apparatus. This device depends on a screen or grid which intercepts the fog-producing secondary rays. This grid, traveling between the patient's body and the x-ray plate prevents this secondary radiation from the patient's body from reaching the plate. As



a result, extreme detail is secured even in the heavier parts of the body.

The success of the Potter-Bucky Diaphragm depends upon extremely fine mechanical construction in order to secure proper results, as the principle involved requires that every portion of the sensitized plate should be covered by the component parts of the grid for an equal length of time.

This is considered the greatest advance in x-ray apparatus in many years. The outfit can be placed on any table or is easily carried about the hospital.

MODEL CONVEYOR KEEPS FOOD HOT

A new model of an already established type of food conveyor has been recently placed on the market and has many points of superiority over similar conveyors.

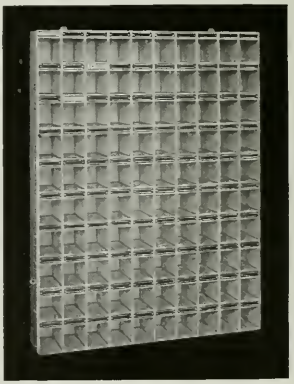
The principle of this new food conveyor is thermostatic, the same principle as the fireless cooker and heat retaining bottles. It provides a number of separate containers so perfected as to retain the temperature, either hot or cold, in the food to be served. It enables food to be transported from the central kitchen to the ward and there served, without loss of flavor or temperature.

The new model food conveyor is mounted on a strong, easy running, quiet truck. The wheels are pressed steel, ball-bearing, rubber-tired, and mounted on ball-bearing swivel forks. The heavy angle steel frame is rigid and the entire outfit is constructed so as to give the most

satisfactory service possible. With this food conveyor one attendant can easily transport food for from forty to eighty patients.

HAVE YOU A RACK FOR YOUR NAPKINS?

Every institution executive has experienced the confusion that exists in dining rooms where napkins are not properly distributed. This confusion results frequently in an undue usage of clean napkins. Furthermore, napkins when soiled should not be brought in contact with each other. To overcome these objections, there has been recently designed a sanitary napkin rack for institution dining and service rooms. The rack is made of steel, white enameled, and has a name plate for each compartment. These cabinet can be made in any size desired and, while particularly useful in nurses' dinings rooms and cafeterias, are also used in the service rooms of larger institutions.



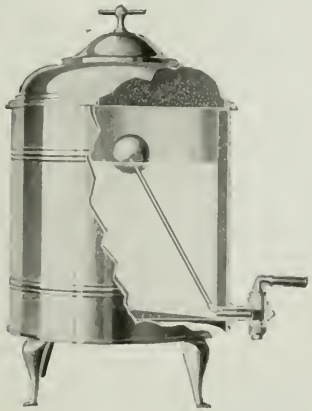
HANDLING YOUR MILK SUPPLY

One of the most valuable articles of food that we have in a hospital is milk, and in all probability it receives less serious consideration as to its handling than almost any other commodity in the dietary department. The potentiality for contamination is greater probably than in most other commodities, and still there are not the safeguards thrown around its handling that there should be.

The source of our milk supply is a subject that is worthy of very serious consideration by our hospitals. Not only should we know that it comes from clean herds, but we should know how old it is when it comes to us, and also its basic make-up. It is of sufficient importance, as I see it, to check this milk supply as part of the routine, as often as may be indicated. This should be done not only from a standpoint of obligation to our patients, but also from a purely business standpoint. If our contract with the vendor of milk provides for a 4 per cent butter fat milk and a 20 per cent butter fat cream, and we are only getting 16 per cent of cream and 3 per cent of milk, we are paying for something that we are not getting. These milk tests are comparatively simple and can be done by the hospital laboratory.

Unquestionably the fresher the milk, the less need for sterilization, but with the best of milk and the best of sterilization, if the subsequent handling from the farm to the hospital is not proper, you will get a contaminated supply at the hospital. There has been tried out in several hospitals, the installation of small pasteurization outfits, and the purchase of raw milk from nearby farms. This has worked very advantageously. With such a pasteurizer, and possibly a small bottling machine, the hospital can furnish to its wards bottled milk, which unquestionably is the ideal way to dispense it. However, the difference in cost as between bulk milk and bottled milk is so great, when purchased from milk supply houses, and the cost of bottle breakage is so high, that in most instances, without such a pasteurization outfit in the hospital, it is almost prohibitive.

If we cannot obtain the ideal, we certainly should approach that ideal as nearly as possible. How many of



Cross section of milk urn showing float that insures definite percentage of "top milk" in each glass.

us have seen a can of bulk milk opened in a kitchen and a dipper used to dip it out, which after being used was laid down on a dirty or semi-dirty table, close to the can of milk? How many of us have watched the content of the first glass of milk that has come out of that can, and the content of the last glass and have seen the extreme variance in food content in the two? How many of us are satisfied with the receptacle with which we dispense our milk, and what assurance have we that these dispensers guard the cleanliness of it after leaving the source of supply?

If we cannot have bottled milk, which I believe is the

Sanitary milk and cream urn.

ideal way of dispensing, then we certainly ought to get a receptacle that will reduce contamination to the minimum. One of the best methods of doing this is a device on the market with a mixing valve, that insures the minimum of variance in butter fat as between the first and the last glass of milk drawn. The average milk urn on the market does not do this. A series of laboratory tests extending over a period of three weeks in the practical application of milk urns shows in an ordinary urn a variance from 20 per cent to 90 per cent, dependent upon the length of time that the milk stands in the urn, as between the first glass and the last glass of milk drawn. The last glass of milk invariably has by far the largest butter fat content. As a matter of fact the last glass almost invariably, in the ordinary urn, is pure cream. In the urn with this special valve the difference in butter fat content between the first and the last glass drawn was less than one-tenth of one per cent.

While the initial equipment of the hospital with such urns is rather expensive, the results obtained surely justify the cost. The urn is heavily insulated and provided with an ice chamber, so that the milk can be kept cool. It is also equipped with a locking device, so that there is no possibility of pilfering, and it has proven very satisfactory to have these urns used as dispensers for each individual ward in the hospital, locking them when they are filled with milk, and placing them in the diet kitchen on the ward, furnishing the milk supply of the ward from it. In this way the chances of contamination are reduced to a minimum, provided, of course, that the original supply is clean; and the possibility of getting a uniform distribution of butter fat throughout the supply of milk is greater. All in all it is much more satisfactory than the method in vogue in a great many of our institutions.

Occupational Therapy and Rehabilitation

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

TOY MAKING FOR THE HANDICAPPED

THERE is a bond of sympathy and understanding between the invalid and the child. Something of common helplessness and dependence accounts for it, perhaps. Certainly the grown man may become as a child in the face of great weakness and physical suffering. Like a child, he finds interest and delight in diversions and occupations which would perhaps bore him or seem beneath his dignity in health, but which at least speed the days of convalescence. On the other hand, the child, sick or well, mimics maturity and develops his faculties through play and work, which are much the same to him unless he happens to be one of the unfortunate children doomed to early drudgery.

As it happens, one of the most important kinds of prescribed work for invalids, adult or child, is toy making, and here the bond is very close. I have been deeply touched many times by the evident delight which sober grown-ups take in the construction of toys. This pleasure means more than appears on the surface and I am sure we do better than we know when we bring the gentle art of toy making into the wards of the city hospitals or into the homes where childhood has ceased to exert its humanizing influence.

Occupational therapy as a rule aims only to restore confidence and physical functions so that further progress may be made. If we can combine with this desirable result a real pleasure and recreation, so much the better. But toy making has even more to recommend it as an occupation for convalescents and the chronically ill. It is a good business proposition if properly conducted, and every well made toy has a market value.

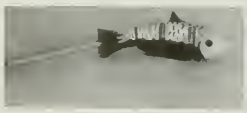
Commercialism in occupational therapy is as bad as the cart before the horse, as awkward and unserviceable. The cry against it is fully justified: the very name "occupational therapy" means treatment by means of prescribed occupation. It is better for a demented patient to thread shoe buttons on a string only to take them off again and repeat the process, than it is for him to remain in complete idleness. But the dictum "the better the work, the better the therapeutic effect" is not to be denied. More and more the occupational therapy aides will find it desirable to present their patients with well thought out problems from the material as well as the medical point of view.

In the hospitals, in the presence of acute illness and precarious convalescence, the greatest care must be exercised lest we burden the patient with work too heavy for him, or overexcite him with the prospect of money return. Even here it should be possible to get good material results. But in home service occupational therapy and in the work among chronic invalids we have a wonderful opportunity to develop a system of handicapped labor which will go a long way toward supporting itself, and which will bring an adequate and in every way desirable money return to the workers.

The idea of money return for handicapped labor is not without precedent. Much has been done along this line in the industries for the blind and among cripples. Nowhere, it seems to the writer, has business planning and careful design accomplished all that should be accomplished for the handicapped, or toward the support of the system.

This is the responsibility of the occupational therapy aides and directors: that they give to occupational therapy and its inseparable accompaniment of handicapped labor for money gain, the same kind of judgment and control which would be accorded to any business project. If we do not, we lose one of our most potent therapeutic resources and at the same time miss our opportunity to make occupational therapy a self-supporting or partially self-supporting proposition.

Anyone acquainted with business knows that the manufacturers put out lines which are failures because of failure in imagination and in the psychology of style. Every store buyer is offered these wares and every intelligent buyer refuses them. We must use for the benefit of the handicapped, imagination, and the psychology of style. Fortunately for our system, we can have the cooperation and intelligence of the aides and their advisors, an aggregate of intelligence and understanding which no other manufacturing system can hope to command. For advertising we have our philanthropic relationships, a close and sympathetic touch with the best buying public. For



selling agencies we have the regular trade, which will not be slow in absorbing a good product. We shall also have before long, combinations of buying and selling bureaus for occupational therapy, like the one now starting in Boston for the wholesale purchase of supplies and the final marketing of manufactured articles. If now we have the right goods to offer, the cycle is complete.

In toy making, design is everything. Without it, the handicapped workers will labor in vain, and discouragement will soon destroy all therapeutic or medical gains.

If we go about it in the right way we can command the services of the best designers in this country and abroad. The advantages which we attain for one group of workers can be passed on for the benefit of all. We need more than anything else in occupational therapy at the present time, the services of a traveling agent or director who has the training and the imagination to pick up good ideas in our own and foreign markets; one who need not copy but who can adapt ideas, old and new, to the requirements of occupational therapy and handicapped labor.

In toy making there is at the present time a great dearth of new ideas, and some of the old lines which are still good have been dropped. A visit to the toy shops in any of our cities will reveal this poverty of ideas. Fortunately or unfortunately, toy design is a very special field. The average designer, qualified in other lines, is helpless and hopeless here. Toy making is open to us, and the handicapped worker has a great advantage, for he can command, or should command, the services of those few designers who are qualified for this work.

We have barely touched upon the posibilities of this great field. When the occupations which are offered to invalids have narrowed down to the few which are desirable from every point of view, the writer ventures to predict that toy making will stand near the head if not actually at the head of the list.

MEDICAL WORKSHOP PROMOTES TOY MAKING AS CURATIVE INDUSTRY*

FOR about a year now there has been in operation at Marblehead, Mass., an experimental workshop or laboratory for the study and development of wooden toy making. The project is maintained wholly in the interests of occupational therapy. The expenses are guaranteed by Miss Anne Hampton Barnes, a member of the National Society for the Promotion of Occupational Therapy, the chief designer is Mr. Philip von Saltza, and the shop is under the direction of Dr. Herbert J. Hall. At the last meeting of the board of managers of the National Society it was voted to give the Medical Workshop official sanction and to place it under the supervision of the committee on research and efficiency, of which Mr. Thomas B. Kidner of New York City is the chairman.

Those who are responsible for this Medical Workshop believe that wooden toy making is one of the very best of the occupational therapy lines and that, properly carried out, the industry possesses the necessary medical or reconstructive values, and at the same time assures an adequate money return to the patient or for the support of the system. But successful wooden toy making is not so simple as it looks. Design is everything. A poorly designed toy will always be disappointing and discouraging to the patient, it will have only a sentimental or fictitious value. It is necessary to simplify and conventionalize the design, for not one handicapped worker in thousands can cut or paint successfully an elaborate and naturalistic toy. The element of caricature is important, for such objects must possess humor or they do not appeal to the adult purchaser, even if they do to the child. Wooden toys must, whenever possible, have moving parts for the satisfaction of the child and they should allow of some constructive, imaginative use if they are intended for older children.

The Medical Workshop, Marblehead, Mass. The upper floor of the fine old house is devoted to the manufacture of "rough hewn" wooden toys for hospital and sanatorium use.

Successful wood painting and finishing is not a matter of chance, but good technic and good results are quite possible for the handicapped worker if tested materials and approved methods are used.

It is manifestly unlikely that the average patient will succeed in producing adequate wooden toys unless he is directed step by step and unless the preliminary work, the part which is too heavy or too technical, is done for him beforehand.

Unfortunately, the busy aide is rarely able to give to this subject the necessary time and thought. The Medical Workshop proposes to fill this gap as far as possible and to provide for occupational therapy in the hospitals, the sanatoriums, and the homes of patients the necessary materials manufactured up to the point where the slow process of assembling, smoothing, painting, and varnishing can be successfully carried on.

During the first year the shop has developed a considerable line of "rough-hewn" or unfinished toys which have been used, with very satisfactory results, in many hospitals. These "rough-hewn" toys are blocked out by machinery in large quantities so that they may be sold to hospitals, individual occupational workers, or hospital patients at a price which makes possible a sub-

*Reprinted from the *Re-Aides Post*, New York City.

stantial profit when the finished product goes to market.

The Medical Workshop sells its own finished models as well as the "rough-hewn" parts. It does this partly for the purpose of supplying good working models for the patient, and partly for the purpose of testing in the actual market the popularity of the toys, so that it may be confidently said to the occupational therapy departments of the hospitals, "These toys have not only a therapeutic value, but also sale value." The director of the shop is inclined to discourage "commercialism" in the hospital wards, but believes that a money value is also a therapeutic value if the matter is handled so that the patient works carefully on prescribed time, and receives only a fair reward for his labors.

Any occupational therapy aide who wishes to work in the toy shop at Marblehead is welcome to do so at any time. It is possible to learn in this way something about quantity production and certain matters of technic in wood finish which might be acquired with greater difficulty under less favorable conditions. No charge will be made for instructions and only a cost charge for materials used. It costs from $25.00 to $35.00 a week to live comfortably in Marblehead, but an experienced aide should be able to learn all she needs to know about the toys in a few days.

The Medical Workshop is not conducted for profit. Any money returns from the work, over and above the cost of maintenance, salaries, etc., will be turned back into the plant for the extension of service and for the future development of new departments.

That no person may hope to supply all the ideas which can be effectively used in toy making for invalids is readily realized. The Medical Workshop is therefore very glad to receive suggestions and will pay a reasonable price for submitted designs that can be used. The confidence and cooperation of occupational therapy workers everywhere is desired.

Price lists and literature will be sent on application. Address the Medical Workshop, 69 Pleasant Street, Marblehead, Mass.

WONDER-WORKING TOYS

TOYMAKING and the weaving of homespun cloths have succeeded well in England not only as occupational therapy for disabled soldiers and sailors, but as peasant industries. In the Lord Roberts Memorial Workshops in several cities, they are employing many crippled soldiers in the manufacture of toys. At Stone Hedge and many other places, weaving is successful.

Following are some excerpts from articles by Mrs. Godfrey Blount, published in pamphlets by the Vineyard Press, London. Mrs. Blount's writing contains the sentiment without sentimentality which lifts occupational therapy and handicapped labor above the ordinary, and gives it the appeal which is its right.

"But the toys themselves, let us consider them a little. To their creation the influences of poverty and tradition seem necessary, and it is the children of the poor who have the most real toys. For the rich child there are changing fashions in them, clockwork acrobats today, phonograph dolls tomorrow, and nursery aeroplanes the day after, but the child of poverty clasps her rag doll to her heart while her brother plays with the almost elemental monkey on a stick. These two frail symbols and their like belong to Fairyland; they are unreal and suggestive; furnished with them, the child learns to live in this world of fact because they hold the door open into the other world, the world of imagination. If that door were shut, childhood would die, and the nursery would have a population of pigmy men and women. So while the rich people not infrequently give their babies diminutive facts to play with, the poor, the meek, who are to inherit the kingdom, have only symbols of earth and heaven to give theirs. Whom shall we pity?

The rolling toy, made at the Medical Workshop, Marblehead, is a desirable type of toy capable of many variations. The mosquito-like insect at the top was made by a crippled child in England, it is simple jigsawing and painting. The jack-in-the-box, which comes rough hewn from Marblehead, is the revival of an old idea. A recent round of the New York City toy shops failed to discover any of these delightful contraptions. The wistful cow is a piece of Russian peasant carving, too difficult for the average worker, but possible where special talent exists.

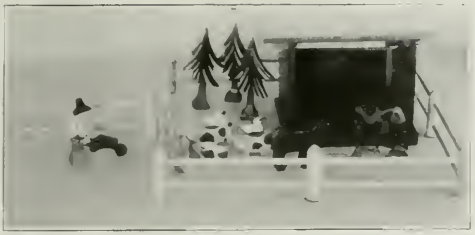
"Shall we begin with the flapper of the baby? To us it is a poor joke, but the baby sees the point of it, and of its woven rattle, too. It and all true toys may be absurd, but their absurdity is above, not below, reason. Only untrue toys are below reason, such as large, bottle-nosed rag policemen, gollowogs, and the like. The true ones are either implements of sport, imitations of lovely or useful fact, or pure symbols of imagination, and, of course, the three kinds overlap."

And this from the same source:

"A philanthropic millionaire was watching a little girl weaving in a public exhibition not long since, and—mechanical speed and high pay embodying for him the highest good!—he remarked compassionately, 'Well, God help the poor creatures that have to make a living at *that!*'

"'Yes, He does!' said the little weaver, surprised at his simplicity. Doubtless, had the philanthropist lingered long enough to discuss the matter, he would have asked, 'Well, allowing that it is worth a girl's while to weave for you, how is she when busy in her own home ever to find time to weave for herself?'

"Let this story answer him. In a remote Sussex village lives a young girl, trained in our industries, whose father is a small farmer, baker, and miller. The mother

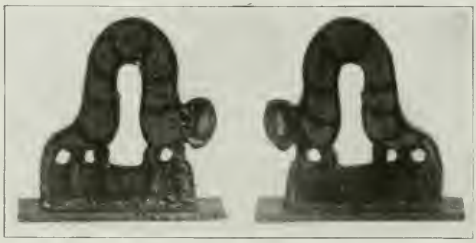


This take-down farm was designed specially for home service occupational therapy. The parts are light, easily carried about by the workers. The color scheme is simple. The fence, which is made of dowel pins, takes down and is capable of extension in any direction. The shed is made in detachable sections. The whole farm packs flat, a very desirable space saving quality.

is a very busy woman, constantly called into the little shop; and this, the eldest daughter, must help with the cooking and the home work generally. And yet on Christmas Day last she gave her father a suit length of tweed, which she had spun, dyed, and woven herself. Now she is making a dress for her mother, and clothes for brothers and sisters are to follow. All this, be it remembered, is done in the spare time of a busy, dutiful life, in which, as a Highland woman once said to us, 'She has a great deal to do all amongst everything, indeed!' She has a little workroom where, with loom and wheel and the fleeces from her father's South Down sheep, she sits and works wonders like any little princess in a fairy tale!

"Now, what we are doing in this Wheel and Spindle Club, others, with proper instruction and no very great outlay, can begin elsewhere. The work is excellently well worth doing, and for these reasons: it makes for happiness and goodness, and is part of the thrift—not the dull hoarding kind, but the happy and fruitful usage of odd time and material—which has always been characteristic of the best peasant life. To give a little girl the use of her hands is to bring a disinherited princess back into her kingdom. Even in this hurried paper we must give two of our most noticeable instances of this. One girl of thirteen came to us as a lumpish, ungracious, glum looking thing, who had attained the proud average of three canings weekly in the village school, and earned the character of fighter outside. Within a few weeks she was a beaming, helpful worker in the spinning room, the fast friend of the nicest girl in the Club, and the school canings came to an end. All her faculties seemed to be reinvigorated, her whole nature cheered and cleared, her desperately damaged self-respect healed, and finally she astounded us all by writing a thoughtful essay, in somewhat Johnsonian English, upon the value of handicraft! From a situation where she is now doing very well she writes asking to be allowed to go on with her spinning. Another, a thin, unsmiling, dutiful child, coming from a home so poor that there had never been time or money for dolls, became quickly and radiantly unrecognizable within the magic spinning circle. In this case, too, the mastering of a craft awakened other powers, and straightway from hearing Grimm's fairy tales read aloud in the spinning room, she went home and made a little play of "Snowdrop and the Seven Dwarfs"—acted later to an audience of proud parents by the smallest spinners in the Club. (How small they were may be judged from the fact that Snowdrop talked to the wicked stepmother out of the window of a newly built henhouse, the dwarf's house on this occasion!) Perhaps such confirmed country cousins as ourselves are prejudiced judges; but to our thinking, Annie's First Play is ever so much nicer than "Fanny's," and quite as significant!

"What, then, is the secret of this influence of handicrafts upon the worker? Surely this, that even in its humblest forms, handicraft is creation, and that we, as children of the Creator and made in His image, only realize what we want and what He means us to be, when we are doing creative work. And surely it means, too,



that hand work has two sorts of worth, the one utilitarian, manifested in visible, measurable things; the other invisible or mystic, and no more to be seen, or weighed or measured, than the soul where it works its evident miracle."

NEWS NOTES

The Re-Aides' Post, excellent paper that it is, finds the cost of monthly publication excessive and is now considering the advisability of changing to the quarterly form.

In *Better Times*, for January, appeared an excellent article by Edwina Spencer on occupational therapy at Montefiore Home, New York. *Better Times* is well worth reading by any occupational therapy teacher. A recent editorial note says: "For those who have not the time to read dozens of magazines devoted to social service work, scores of bulletins of public welfare organizations, and hundreds of charity leaflets and annual reports, *Better Times* epitomizes in this department from such publications, important news relative to social progress in New York City."

Shall the various societies active in the rehabilitation movement join hands and form "one big union," or shall they continue to function separately? The trend seems to be in favor of separate organization for occupational therapy, physiotherapy, social service, etc., so that the spirit and individuality of the various types of workers may not be lost. Unquestionably, however, there must be interlocking committees, and perhaps a general advisory board made up of members of the various organizations, so that there may be full cooperation and no failure in teamwork.

At the February meeting of the board of managers of the National Society, it was voted that the present board of editors of the occupational therapy section of THE MODERN HOSPITAL be given the endorsement and support of the Society. Among other matters discussed was the desirability of a national journal of occupational therapy. No one questioned the need of such a journal, but because of publication costs, the sentiment of the board was in favor of making use as far as possible of the generous space offered to occupational therapy in the pages of THE MODERN HOSPITAL. Final decision on this important matter will have to be deferred until the annual meeting in Baltimore, when there will be a full discussion and a vote of the Society for or against a special journal.

Mr. Charles Edward Barton of Consolation House, Clifton Springs, N. Y., has recently resigned from the board of managers of the National Society for the Promotion of Occupational Therapy. The board regretfully accepted the resignation, and appointed Mr. T. B. Kidner of New York to fill the vacancy for the current year.

There has been a great deal of discussion during the past year in regard to a possible change in name for the National Society for the Promotion of Occupational Therapy. Many of the members feel that the name is cumbersome and that the word "promotion" is no longer appropriate, since the shoe is now on the other foot and occupational therapy is promoting the Society. "American Occupational Therapy Association" has received favorable comment, it is crisper, more to the point, and the initials make a good monogram. Ideas on this subject will be gladly received by the editors and will be published from time to time in these columns.

One hundred and forty-two new names have been added to the membership roll of the National Society for the Promotion of Occupational Therapy since the annual meeting last fall. This is encouraging, but the number should be nearer five hundred, considering the increasing interest in occupational therapy all over the country. If the Society is to have the power and influence which will make it of the greatest service, we must secure a very much larger membership, and that in the near future. Membership blanks may be obtained by writing to Mr. Louis J. Haas, secretary, Bloomingdale Hospital, White Plains, N. Y. Anyone interested in occupational therapy is eligible to associate membership, and all teachers or directors of occupational therapy should belong to the Society.

A CHILDREN'S HOSPITAL EPISODE

At the Children's Hospital in Boston, Mass., the craft of toy making has been started with a part time paid director and several volunteers in charge. One of the volunteers tells the following story.

"Coming to the ward one morning, I found that two of the boys had been fighting. They were glaring at each other across the ward and had to be kept apart by main force. I told the boys I would not let them work unless they became friends again. They refused the proffered truce at first, but soon became so much interested in what was going on that they approached the working group and forgot each other. Finally I gave them brushes, and before the hour was over they were painting out of the same dish and had become the best of friends."

This is a trivial incident, perhaps, but men are children and children are men. In common interest are the elements of peace and contentment. Under the millennial influence of occupational therapy and later of absorbing work, many a lion and lamb lie down together, many a more serious feud finds peaceful solution.

THE VALUE OF OCCUPATIONAL THERAPY IN TUBERCULOSIS

The great value of occupational therapy in the treatment of discharged and disabled soldiers has been strikingly shown in the reports to the surgeon general from the government tuberculosis sanatoriums of the United States Public Health Service. This occupational therapy, consisting in mental work and manual handicraft, for curative and recreational purposes, bids fair to play an important part in the medical treatment carried on by this service. The Public Health Service now operates the largest unit engaged in occupational therapy and physio-therapy, employing more than three hundred experts, most of whom are women. It has always been a problem in the care of tuberculosis to keep the patients under treatment for a sufficiently long time. Many of the patients, against the advice of their physicians, leave the institution within a month of their admission. According to the Public Health Service report, out of 392 patients admitted to one sanatorium, 263 took occupational therapy and 129 did not; of the patients who did not take it, 83 left the hospital against the advice of the physicians in charge, while of those who did take it, only two patients left before it was considered advisable. This is a record of less than 1 per cent, as against 65 per cent among the former class of patients.

Dr. Lavinder, who is in charge of the United States hospitals for the care of disabled soldiers, said, "Occupational therapy is one of the latest developments in the modern care of patients. It is applicable to all kinds of conditions, and is given both for direct, curative action, for the improvement of function of muscles and joints, as well as for the marked effect in stabilizing the patient by increasing the morale. Our results with it have been excellent. Occupational therapy is not vocational training. In the hospitals of the United States Public Health Service occupational therapy is given to bed patients and those who are convalescing. When the patients have completely convalesced, this form of therapy is succeeded by vocational training."

OCCUPATIONAL WORK AMONG CHILDREN

Perhaps the most interesting study made by this station during the past season was that of occupational treatment applied to twenty children in the pneumonia and empyema ward of Boston City Hospital. These children were all acutely ill, no one being able to be transferred to the convalescent home. Many were operative cases, ranging from four to twelve years in age. The sickest children wished to work, as soon as they had breath enough to speak they asked for it. They were given only finger muscle work. They treasured these pieces of work, and referred afterwards to the days when they could do this sort of thing. One said, in talking to a new pneumonia case, "You must begin with the very easiest work; we did it, and I can show you just how to start; afterward you will do harder things." Ten forms of occupation were taught and about one hundred pieces of work finished.

At the end of the study an exhibit of this work was set up at the Children's Museum, Olmstead Park, Jamaica Plain. It attracted much attention from both children and adults.

POVERTY MAKES HOSPITALS NECESSARY

Income tax returns for the year ending December 31, 1918, show that approximately four and one-half million persons paid a tax on an income of more than one thousand dollars. Then, by the process of elimination, we find that even in this year of unusual prosperity, not taking into consideration the self-supporting farmer group, there must be more than five million families with an income of less than one thousand dollars a year. It has been found by all recent studies, that the smallest income on which reasonable American standards can be maintained is from twelve to sixteen hundred dollars a year, for a family of five. Thus it is easy to see at least part of the reason for the development of large dispensary systems, free hospitals, work to improve the health of school children, and some of the difficulties of promoting civic welfare in the midst of unfavorable home conditions, as well as a part of the basis for the exploitation of children at the expense of their health.

Dispensaries and Out-Patient Departments

Conducted by Michael M. Davis, Jr.

Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, and Chief, Service Bureau on Dispensaries and Community Relations of Hospitals, American Hospital Association, 15 W. 43rd Street, New York

CLEVELAND SURVEY FORMULATES DISPENSARY STANDARDS AND POLICIES

THE Cleveland Hospital and Health Survey, which was made at the request of the Cleveland Hospital Council, was an effort to make a definite contribution to the study of current facts, and on the basis of these facts to formulate policies for the future. The Survey was divided into twelve parts, one of these being devoted to "Hospitals and Dispensaries," part of which was standards and policies for dispensaries. These standards and policies, as outlined by the Survey, are as follows:

Admission of Patients

(a) Policy.—In determining admission to a dispensary, the needs of the patients and the protection of the community must be the primary consideration. The medical profession has a right to be protected against imposition by persons who seek in clinics the unpaid service of physicians, when they could afford to pay for the medical care which they need. The public has a right to service.

(b) Standards.—In determining the admission of individual cases to a dispensary, three points need to be considered: namely, the income of the patient or family, the size and responsibilities of the family according to a reasonable standard of living, and the character and probable cost of adequate medical treatment for the disease or condition found. It should be added that under certain circumstances public health considerations must be the determining factor, for example, a case of infectious syphilis may demand immediate treatment, irrespective of what later disposition of the case is made. When a difficult or obscure condition must be diagnosed, or when treatment by a specialist is required, patients might be accepted whose circumstances would enable them to pay for the services of a family physician, though not for consultation with or care by specialists.

(c) Procedure.—The social service department should be responsible for the admission of new patients. Certain practical points connected with this matter will be found in the discussion of social service.

Medical Relations

(a) Policy.—The medical staff of the dispensary and also the organized medical profession of the community have a right to be consulted about policies or problems affecting their interests. In the case of the general profession, this should be possible through conference between representatives of the dispensary and representatives of the Academy of Medicine. The Central Dispensary Committee would largely accomplish this purpose.

(b) Compensation.—Hospitals and dispensaries cannot expect to secure enough of prompt, regular and efficient medical service unless compensation is given to the physicians of the staff either in opportunities for study and experience, or in financial remuneration, or in both. The generous willingness of physicians to render humanitarian service is traditional and unquestioned, and should not be unduly exploited. Each dispensary or out-patient department, considering its own type of work and the medical facilities offered, must determine for itself the manner in which it can best attract and retain an adequate medical staff. The advice of central bodies such as the proposed dispensary committee and of the Cleveland Academy of Medicine would be of value in this connection from time to time.

(c) Consultation.—A definite function of the dispensary, particularly of the major institutions, is to provide consultation facilities for physicians.

(d) Diagnostic Facilities.—In addition to opportunities for consultation, dispensaries should make the services of their laboratories and x-ray departments available to the private patients of physicians (when referred by them) when such patients cannot afford the rates charged by private laboratories or by x-ray specialists.

(a) Policy.—It is a good policy to charge admission fees and also treatment and medicine fees; no patient being denied a needed service because of inability to pay the stated fee in whole or in part.

The presence of medical teaching need in no way affect this policy.

(b) Rates.—For clinics receiving the gratuitous services of physicians, an admission fee of twenty-five cents per visit is reasonable at the present time. It is desirable that through the proposed Central Dispensary Committee, fees be made uniform for similar classes of service.

For clinics which aim to be self-supporting and which furnish a more than nominal remuneration for the physicians, the fee should be not less than fifty cents a visit, and may be higher for certain classes of services. The basis on which such fees should be adjusted is the cost of service.

Fees for special treatments, apparatus, eye-glasses, and medicines, should be fixed at or somewhat above the cost of the materials and immediate service provided.

Definite schedules of all the admission, and the more usual treatment and medicine fees, should be posted in suitable places in every dispensary.

(c) Pay Clinics.—Clinics charging fees of fifty cents

or more a visit should be regarded as pay clinics and should provide financial remuneration for their medical staff. In determining the rates of remuneration, conference with representatives of the Cleveland Academy of Medicine is suggested, or the proposed Central Dispensary Committee would serve this purpose.

Such pay clinics should aim to serve self-supporting families of limited means, particularly in the specialties. There is much need for the further development of such clinics in Cleveland.

The admission system in connection with pay clinics should protect the interests of the medical profession as well as of the patient by adopting and carrying out the standards above outlined.

(d) Remission of Fees.—The admission desk in the smaller dispensaries should be responsible for the remission of all fees. In large dispensaries the admission desk may be unable to attend to all remissions in the case of old patients, and social workers in one or more clinics should be authorized to pass on remissions for the appropriate group of cases.

Adaptation of Clinics to Clientele

(a) Hours.—Evening clinics for working people are desirable in all or almost all dispensaries. These clinics may well be pay clinics.

(b) Foreign-Speaking Patients.—Special efforts, as outlined in the discussion of the foreign-born, in the section on the "Human Problem of the Hospital Patient," should be made to enable persons not speaking English to receive effective treatment.

(c) One important group of the clientele of nearly all dispensaries is that of the beneficiaries of other charitable or medical agencies. It is part of the duty of a dispensary to serve as the family physician for these. This requires: (1) examination of patients and families and full reporting of conditions found, to the society interested; (2) treatment of those needing care, usually without fee; (3) special arrangement whereby the social service department of the dispensary has charge of "steering" these cases and insuring that the work is done and the reports are rendered with a minimum of administrative demand upon the clinic physician.

(d) The dispensary should be a main agent in the admission of hospital patients to the wards and in the follow-up of those discharged.

Inter-Relations of Dispensaries

(a) Duplication.—The pursuance of treatment by a patient or the members of a family at more than one dispensary at the same time should be discouraged and prevented as far as possible by careful admission systems. The inquiry at the admission desk should include question as to place or agency of previous treatment.

(b) Reference of Patients.—Patients recently under treatment at one dispensary and not specifically referred to another for consultation, should be referred back to their former place of treatment, except when satisfactory reason is found to exist for the transfer. The same policy should of course be pursued when a patient has been under treatment by a private physician.

The use of printed or written slips of reference is of practical service.

(c) Districting.—The limitation of the work of each dispensary treating the sick to a definite area is not practicable, but patients should be encouraged to seek treatment in the section of the city in which they reside or have their place of business. Well administered admission systems at each dispensary and a common understanding of policy, worked out by the proposed central committee, should reduce to a minimum problems of duplication and of overlapping of areas.

Dispensary Organization

Essential points of organization are presented in the sections on "Organization for Service" and "The Medical Profession and the Hospitals," and will be merely recapitulated here:

An executive head for the dispensary.

A medical organization which is integrated with that of the hospital.

A dispensary medical committee.

A dispensary committee of the board of trustees, or, if the board has not a sub-committee system, one or more members of the executive committee who have special responsibility to be in touch with the dispensary.

The dispensaries of Cleveland would do well to develop carefully worked out systems of referring patients from clinic to clinic within the dispensary, for consultation purposes; and for transferring patients for treatment from one clinic to another, with due report back to the referring or transferring clinic.

The important place of the social service department in dispensaries is outlined in the section devoted to social service.

Principles of a Community Plan

There should be a small number of what may be called major hospitals and dispensaries, equipped with everything in the way of modern diagnostic and therapeutic equipment. These major hospitals and dispensaries are expected to be city-wide in their range, and to serve particularly for receiving difficult cases from within and outside the city, for consultation purposes and for diagnosis. In Cleveland the new City Hospital with its dispensary should serve as such an institution for the west side. Lakeside, in its present location or in its enlargement as part of the University group, would serve in this capacity also. Mount Sinai and St. Vincent's may be mentioned also, and a few other hospitals, such as St. Luke's, may develop on a similar grade, although the teaching hospitals and dispensaries should be the distinctive institutions of this class and every effort should be made to render them capable of measuring up to this responsibility fully.

What may be called the district hospital, with its district dispensary or out-patient department, may next be mentioned. In this group may be included the bulk of the hospitals of Cleveland, the range of which is not strictly confined to a given district but which are more local in character and which may not usually expect any large consultant or diagnostic service such as would go with the teaching institutions. Somewhat less elaborate and expensive equipment and a less high degree of specialization in medical organization may be expected in this group of institutions. It may be pointed out that such institutions fill a necessary and most worthy place in the scheme of hospital and dispensary care to the people of large cities.

Finally come the health centers, primarily preventive in their activities. More and more as the years go on, various therapeutic services of the simpler kind need to be located in as many neighborhoods as possible, because the more localized is their range, the more intensively and effectively can they reach 100 per cent of the population with a message of hygiene, with periodical examinations for the detection and prevention of disease, with service for the prevention of infant and maternal mortality, the

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discovery and control of tuberculosis, and the detection of remediable defects of school children.

The health center should aim to reach the entire population of its district for preventive purposes, sending cases in which defect or disease is discovered, either to the family physician or to an appropriate dispensary or hospital, or in the case of difficult problems, directly to the major institutions for diagnosis. The combination of some of the simpler forms of curative work with the educational and preventive services is a necessary development of the health centers of the future. It may be pointed out that the proposed downtown dispensary and emergency hospital which will be permanently needed in the downtown section after Lakeside and Huron Road move, will be largely a reference center for preventive as well as for diagnostic and curative purposes. Particularly in a city like Cleveland, with its important medical school, the institutions doing the teaching must bear the primary responsibility, in hospitals and in out-patient clinics, for diagnostic service for the patients of private physicians as well as for the patients who cannot afford to pay a physician. The medical profession should reap the benefit of the development of more extensive services in the health centers and in the district hospitals and dispensaries. Appointments therein as staff or auxiliary members, and the benefits of their facilities for consultation and diagnosis, should supply the most serious present deficiencies in what the local practitioner has to offer his patients.

It is evident that the danger of a "community plan" is that it leads us to glittering generalities merely. But it ought to be obvious that the absence of a community plan leads to anarchy. Cleveland has taken a long step away from the state of anarchy which characterizes the medical institutions of most large cities, through its Hospital Council and its Welfare Federation. Any community plan which exists not merely on paper but which is a living thing with muscles and teeth, requires that individual institutions must adapt their policies and programs accordingly.

Sacrifices of policies or programs which seem desirable and legitimate from the standpoint of an individual institution may be called for by its proper adjustment to larger community needs. It seems hard, at times, to expect a worthy institution to say "no" to the eager desire of its staff for a program of expansion, which a community survey shows is more than is required by the institution's district or by the particular kind of need which it serves; yet at times such negative prescriptions are wise and necessary, and should be self-imposed. It is not too much to expect of the hospitals and dispensaries of Cleveland that they have a community plan. It is not too much to expect that they abide by it, living not as bachelors and spinsters who have only themselves to consider, but as members of a family each of whom shares, nourishes, and is nourished by the life of the whole.

FOLLOW-UP OF SCHOOL CHILDREN TO BE STARTED

Has the removal or cure of remediable defects in school children had the great beneficial effects that were expected? Nobody knows; for both time and follow-up methods have been lacking. Now, however, the United States Public Health Service is making arrangements to have such children in all parts of the country followed up for some years to learn how greatly they actually have profited by the help given them. It will welcome additional information along these lines from all sources.

PUBLIC HEALTH SERVICE FORCED TO TRANSFER TUBERCULOSIS PATIENTS TO THE EAST

All the hospitals and contract hospitals of the United States Public Health Service in the semi-arid Southwest are already crowded with tuberculosis patients, and the influx of others from the Eastern states continues so great that the Public Health Service has been forced to transfer patients from Tucson, Ariz., and other western hospitals to sanatoriums near Asheville, N. C.. and elsewhere in the East.

Many ill-advised patients have of late thronged to Tucson, unmindful of the fact that every hospital bed in that place is filled and every hotel and boarding house overcrowded. More than five hundred tuberculosis subjects in Tucson are unable to find entrance to a sanatorium. Other towns in the Southwest report similar conditions.

Surgeon General Cumming again renews his warning against tuberculosis patients leaving sections where the government is able and willing to care for them, and going to the Southwest on their own initiative.

RELIEVING THE HEAT IN "HOT JOBS"

"In so-called 'hot jobs' in industrial plants where high temperatures are essential," says Surgeon General Cumming, of the United States Public Health Service, "the heat can be greatly diminished by water-jacketing boilers, insulating blast furnaces, with double walls of fire brick, and kindred devices. Where the actual temperatures in the plant cannot be much reduced, great relief can be given by big electric fans. Radiant heat, which hurts the eyes, can be largely obviated by screens of wire mesh or of loosely hanging chains, through which the workmen can pass when they must approach the furnaces. Goggles, wire mesh face masks, asbestos aprons, cork or asbestos sole shoes all help considerably. Easily accessible drinking water, never colder than 55 degrees F., is absolutely essential to health."

ASSOCIATION RECEIVES NEW MEMBERS

The following institutions have become institutional members of the American Hospital Association since January 1, 1921: Suburban General Hospital, Bellevue, Pa.; Brown Memorial Hospital, Conneaut, O.; Mansfield General Hospital, Mansfield, O.; Western Minnesota Hospital, Graceville, Minn.; Glens Falls Hospital, Glens Falls, N. Y.; Iowa Methodist Hospital, Des Moines, Ia., Chester Hospital, Chester, Pa.; Soldiers' and Sailors' Memorial Hospital, Penn Yan, N. Y.; Hutchinson Methodist Hospital, Hutchinson, Kan.; Montreal General Hospital, Montreal, Quebec; Park Avenue Hospital, Denver, Colo.; Missouri Baptist Sanitarium, St. Louis, Mo.; and Rutland Hospital, Rutland, Vt.

COST OF FAKE CURES

It has been estimated by the National Tuberculosis Association that the almost unbelievable sum of $15,000,000 to $25,000,000 each year is wasted by victims of consumption in the United States on fake "cures." Records show that the number of so-called "cures" that have been tried out and exploited for gain or otherwise during the last ten years in the United States is well over a thousand.

I do not believe that a republic can live and prosper whose wage earners do not receive enough to make life comfortable; who do not have some upward avenue of hope before them.—Benjamin Harrison.

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VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
Director, Department of Medical Activities
The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

LOCATION AND EQUIPMENT OF THE SYPHILIS CLINIC

"I AM convinced that the best results are obtained if the syphilitic clinic is part of a polyclinic or general dispensary," says Dr. Herman Goodman of New York, in a recent issue of the *Boston Medical and Surgical Journal*. Many patients may hesitate to enter a special infirmary on account of the exposal of their condition, or they may be ignorant of their disease, and the other departments of a polyclinic may direct such patients to a clinic in the same institution with more likelihood of their going, than if it were in a separate one. It is also desirable to have specialists in eye, ear, nerve, and general medicine near at hand for consultation purposes. Dr. Goodman is also convinced that linking the syphilis clinic with the skin department works best, because the skin specialists will be the men in the community best fitted for this work. The fact that the overhead expenses are much reduced is another argument for having the clinic connected with the hospital.

The syphilis clinic should be kept in mind in the planning of the hospital, for too often the clinic work is restricted by the limitations of space. The clinic should be if possible in a separate building connected by a passage way with the hospital. The building should be erected with a view to the future needs of the work and not just the immediate ones. It is a good plan to have an upstairs which may be used for something else at first, until the clinic has expanded sufficiently to need it. There should be separate but connecting rooms for (1) social service, (2) appointment office, (3) clinical examination, (4) dark field examination, (5) dental outfit, (6) the injection of salvarsan, and (7) an infirmary for the spinal puncture cases.

The syphilis clinic should be open during the regular hours of the dispensary, and three evenings a week in addition.

Dr. Goodman gives a list of the necessary equipment and supplies:

EQUIPMENT AND SUPPLIES

For Syphillis Clinic Proper: Renewed as Required.

Acid acetic, ½ lb. in bottle	Botts.	1
Acid hydrochloricum, ½ lb. in bottle	Botts.	1
Acid nitricum, ½ lb. in bottle	Botts.	1
Adrenaline chloride, 1 mgm. tablets, 20 in tube	Tubes	5
Aether, ¼ lb. in tins	Tins	5
Aethylis chloride, 3 oz. in tube	Botts.	1
Alcohol, 5 gallons in bottle	Botts.	1
Collodium, 1 oz. in bottle	Botts.	1
Glycerinum, 1 lb. in bottle	Botts.	1
Hydrargyri chloridum corrosive tablets, 250 in bottle	Botts.	1
Hydrargyri chloridum corrosive, 3 oz. in bottle	Botts.	1
Hydrargyri salicylas, 1 oz. in bottle	Botts.	6
Iodum, 1 oz. in bottle	Botts.	1
Normal saline tablets in bottle	Botts.	3
Oleum ricini, 1 qt. in bottle	Botts.	1
Petrolatum, 3 lb. tins	Tins	1
Petrolatum liquidum, 1 lb. in bottle	Botts.	2
Phenol, ½ lb. in bottle	Botts.	1
Potassii iodidi, ½ lb. in bottle	Botts.	1
Salvarsan (arsphenamine)	as required	
Sapo mollis, 1 lb. in bottle	Botts.	6
Sodii hydroxidi sticks	Botts.	1
Spiritus ammoniae aromaticus	Botts.	1
Talcum, 2 lbs. in tins	Tins	1
Thymol iodidum (Aristol) 1 oz. in bottle	Botts.	1
Unguentum hydrargyri, ½ lb. in bottle	Botts.	2
Unguentum hydrargyri chloridi mitis	Botts.	2

STATIONERY

Baskets, letter	No.	3
Baskets, waste	No.	1
Blotters, hand	No.	12
Books, blank, crown cap, 250 pages	No.	2
Cards for filing	as required	
Envelopes with return address of clinic	No.	250
Envelopes with return address but no name	No.	250
Erasers, rubber pencil	No.	3
Erasers, typewriter	No.	1
Forms, blank	as required	
Ink, black	Botts.	1
Ink, red	Botts.	1
Inkstands	No.	2
Labels for vials, Poison, etc	Gross	1
Pads, ink, for stamps	No.	3
Paper, carbon	Box	1
Paper fasteners	Box	1
Paper, typewriting	Pks.	1
Paper, typewriting copy	Pks.	1
Paste, library	Jars	1
Pencils, lead	No.	12
Pen holders	No.	12
Pens, steel	Gross	1
Rubber stamps	as required	
Rulers	No.	1

MISCELLANEOUS SUPPLIES

Bandages, gauze, assorted widths	No.	36
Basins for sponges, etc. White enamel	No.	2
Basins, hand. White enamel	No.	2
Boilers, instrument, 9x18x4 inches (Arranged with gas or electricity.)	No.	1
Buckets, metal, with cover	No.	2
Cabinets, large, for instruments, dressings, etc	No.	1
Cabinets, filing	as required	
Chairs, common	as required	
Corkscrew	No.	1
Cotton, absorbent, in roll	as required	
Desks, office	No.	2
Funnels, glass, 25 c.c.	No.	3
Gauze, plain	as required	
Gloves, rubber, sizes 7, 8, and 8½	as required	
Graduates, glass, 10, 100, 250 c.c. aa.	No.	1
Hones, Arkansas	No.	1
Irrigators, stand for	No.	1
Jars, for dressings, large	No.	1
Lamp, spirit, glass	No.	1
Medicine droppers	Doz.	1
Plaster, adhesive	Spools	6
Pus basins	No.	3
Scissors, bandage	No.	1
Shakers, salt (for powders)	No.	2
Shears	No.	1
Sheeting, rubber	Yds.	6
Soap, Ivory	Cakes	72
Tables, instrument	No.	1
Tables, operating, built as required of wood	No.	1
Tables, typewriting	Gross	6
Tongue depressors, wood		
Tourniquets, rubber (use old rubber tubing from salvarsan)		
Trays, instrument, white enamel	No.	1
Tubing, glass, assorted	Lbs.	1
Tubing, rubber, for salvarsan special	as required	
Typewriters (characters +, ±, & medical)	No.	1

LABORATORY

I consider that the syphilis clinic will not attempt to do its Wassermann tests or colloidal gold tests, in the beginning at least, but will utilize the city health department laboratory, a central laboratory of the dispensary or affiliated hospital, or a commercial laboratory (only as a last resort, because of the expense to the patient).

Apparatus, distilling, complete	No.	1
Beakers, glass	No.	6

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Gauze wire, iron	Pieces	4
Hemocytometer	No.	1
Jars, staining Coplin	No.	3
Labels, microscope	Books	1
Microscope	No.	1
Microscope and dark field condenser, complete	No.	1
Paper, litmus, blue and red, aa	Vials	1
Pencils, wax, red	No.	1
Slides, glass, extra thin for dark field	Doz.	6
Stop cock for rubber tubing	No.	3
Test glasses, footed urinary	No.	6
Test tubes	No.	36
Test tubes, stand for	No.	1
Urinometers	No.	1
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Gravity tubes, for spinal therapy	No. as required
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Needles, Spinal	No. as required
Hypodermic syringes, 2 c.c. and needles	No. as required
Hypodermic syringes, 30 c.c.	No. as required

SYPHILIS AND THE HOSPITAL

The hospital executive often expresses doubt when asked whether he should admit patients suffering from syphilis, and usually or frequently refuses to receive patients when the diagnosis, before admission, is syphilis.

The internist, the syphilogist, or the health officer, when asked whether the syphilitic patient should be admitted to hospital, promptly answers, "Yes," and then presses for his particular type of case, whether it be from the standpoint of bed care for the patient suffering from serious systemic disease, the patient in need of intensive anti-syphilitic treatment, or the individual requiring control and treatment to protect the community.

The social service worker, the hospital, the "friendly visitor," and the layman interested in hospital matters ask questions of all professional groups about the dangers of infection and moral contamination.

How can these divergent opinions and points of view be correlated? What are the facts? It is most generally admitted that:

1. Syphilis is not markedly different in degree of communicability from pneumonia and typhoid.

2. All syphilis patients do not need to be hospitalized.

3. Great progress would be made in the control of syphilis if all cases in the infectious stage could be hospitalized for a long enough period of time to be given one intensive course of treatment.

4. From the strictly medical standpoint, cases that absolutely require hospital care are relatively few. They are the rare cases of malignant syphilis, the cases that require intraspinal treatment or diagnostic observation, including spinal puncture, patients whose general physical condition requires or whose lesions require constant observation or attention, and patients suffering from syphilis of special organs.

5. Syphilis is not dangerous from the hospital viewpoint. The simplest precautions against infection are all that is required. Cases of cross infection are rarely seen where reasonable hospital technic exists. When encountered, gross negligence or ignorance of the patient's condition, or some other preventable factor, is responsible.

6. Two or three doses of arsphenamine usually render a patient practically noninfectious. Thus simple precautions coupled with prompt, efficient treatment during the first twenty-four hours or forty-eight hours protect all concerned.

7. The hospital need but establish ordinary typhoid precautions in order to protect itself, its inmates, and its staff.

The responsibility of the general hospital is that of so conducting itself that it will function efficiently in carrying out its share in the federal and state campaign for the control of syphilis. Its doors must be open to sick people. People with syphilis are sick.

ALL-AMERICA CONFERENCE ON VENEREAL DISEASES

Statistical Bulletin, Metropolitan Life Insurance Company, December, 1920, Vol. 1, No. 12.

The significance of the venereal diseases to public health is becoming recognized. There are, however, two obstacles in the way of venereal disease control: the lack of trained personnel to handle the complex problems involved, and the absence of a program that represents the best judgment of experts in the field.

To meet the first difficulty, an Institute on Venereal Disease Control and Social Hygiene was held in Washington. It brought together over six hundred eager students who received specialized instruction in the various phases of the problems.

The second difficulty was met by the All-American Conference on Venereal Diseases, which immediately followed the Institute. This had for its purpose the review of past efforts in the field, the evaluation of the work done, and the establishment of a program that might be followed for the next several years.

Emphasis was placed upon the deliberations of the statistical group. Scientific, trustworthy premises are necessary. It was recommended that a committee of statisticians be appointed to pass on all important statistical conclusions before they are disseminated for general use.

The committee recommended, further, the more general use of the Wassermann reaction, the postmortem examination of tissues, and other means of accurate diagnosis of the diseases. It added that a special study should be made to determine the extent to which the venereal diseases, especially syphilis, are responsible for deaths reported as due to congenital debility, organic diseases of the heart, etc.

Although there was much discussion centering around the desirability of obtaining confidential reports from physicians where death of the patients results from a venereal disease, no final conclusion was reached because of the difference of opinion among the delegates. The consensus of opinion seemed to be that the community interest must take precedence over the individual interest, believing that the confidential reporting method would in the long run impair registration if it carried the idea that these conditions must forever remain secret.

RELATION OF SYPHILIS AND INSANITY

That syphilis causes a substantial percentage of existing insanity has long been recognized, but heretofore definite statistics bearing on the subject have been meager. To supply this need the United States Public Health Service queried the superintendents of 159 state hospitals for the insane, in regard to the number of inmates who had become insane by reason of this disease. Of the 115 replies received, eighty-eight supplied data that could be tabulated; and from this, it appeared that 15.5 per cent of admissions and 6.2 per cent of inmates among the men and, correspondingly, 6.1 and 2.2 per cent among the women were directly due to the disease. The excess in the percentage of admissions over inmates is due to the comparatively short life of those who become insane.

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Hints to Hospital Superintendents

CARE OF BLANKETS AND PILLOWS

The care of blankets and pillows is one of the problems which confronts hospital superintendents at this time of the year. Miss Lina Fish, housekeeper of the Chicago Municipal Tuberculosis Sanatorium, gives an account of the system which she evolved to overcome the difficulty.

"We took rooms that were used for storage, seeing to it that they were not subject to floods or sweating steam pipes, and put up cases of "deaded" ceiling, arranging them so that each compartment held just so many single or double blankets, folded exactly alike. We knew that when we had that space filled we had its allotted number. Upon the many cases we kept a card index. The index corresponded with the blankets inside and with the different units sending them for storage. By this means we were able to return in the fall, when needed, the same blankets that had been given care during the summer. We were very careful to see that moth marbles were placed among them in sufficient numbers to insure against any damage from moths, and I can state that, owing to this plan, we have never had a single blanket attacked by that dreaded summer scourge, the moth. It might be well to state here that all blankets are examined carefully to decide whether they require laundering or merely airing.

"When laundering was required, we saw to careful washing. One of the most important factors in a successful cleansing is the soap. It is necessary, in consideration of the animal wool, to have a vegetable soap if possible, for the purpose of keeping down the shrinkage, and, of course, the water must be kept at the same temperature throughout the process. It is best to give them two suds but not to use too much soap; the second suds should be light, with almost one-half less soap than the first. All soap must be rinsed out for perfect work. With the drying of woolen blankets comes the principal task. Many are obliged, from restricted grounds, to use the dry-room tumbler, and this will do the work if the heat is regulated to a little above natural, but if the blankets are given too much heat they shrink and become hard, no matter how well washed. If it is possible, they should be dried outside, preferably on the lawn, as it is much easier to spread them and it makes such a difference in their condition if they are exposed to sun and air. In the case of cotton blankets, the drying should be done with the dry-room tumbler or in a dry-room rather than with the mangle. We all know that there is more wear and tear in the laundering and mangling of flat work than in the using. Cotton blankets can be folded up systematically and piled from the dryer, and then the nap is saved and they will still be sufficiently smooth for the bed. One-half of the wear, as we have found by experience, results from putting them through the mangle. This, of course, applies more directly where cotton blankets are used for outdoor sleeping and take the place of sheets. The tendency with the substitute for the sheets is to put it through the laundry more often than is necessary, for the habit of a change of sheets every week is strong.

"While speaking of blankets, it may be said that feather pillows can also be treated to a bath and renovating bills be saved. The pillows should be put in the machine with about the same soap that would be used for blankets; regular laundry soap will do for this. The loads should not be heavy. The water should be a little warmer than for blankets, and the pillows should be given a good washing. Of course the extent of the first suds depends on the condition of the pillow. They should be given a second suds and rinsed several times. All the water must be kept at the same temperature after the first suds. Then the principal thing is the drying. They should be put in the dry-room tumbler and kept tumbling until dry. If there is not time to give them a full drying in the tumbler they can be placed in the regular dryer and finished in the tumbler. They will come out like new pillows."

CARE OF LINOLEUMS AND CORK CARPETS

If you have floors of battleship or inlaid linoleum, waxing is recommended as the best preservative and the easiest way to keep them clean. Before applying any wax, however, the linoleum should be thoroughly cleaned by scrubbing with warm suds made with mild soap, preferably a vegetable oil soap, free from alkali. After the floor is dry, a good floor wax, preferably liquid, should be applied and rubbed in thoroughly. The use of a weighted brush or an electric floor waxer will give a beautiful polish and a smooth surface, to which dirt will not adhere. After three or four such waxings, a week or so apart, the wax need not be renewed oftener than once every two or three months. Daily cleaning need consist only of going over the floors with a dry mop.

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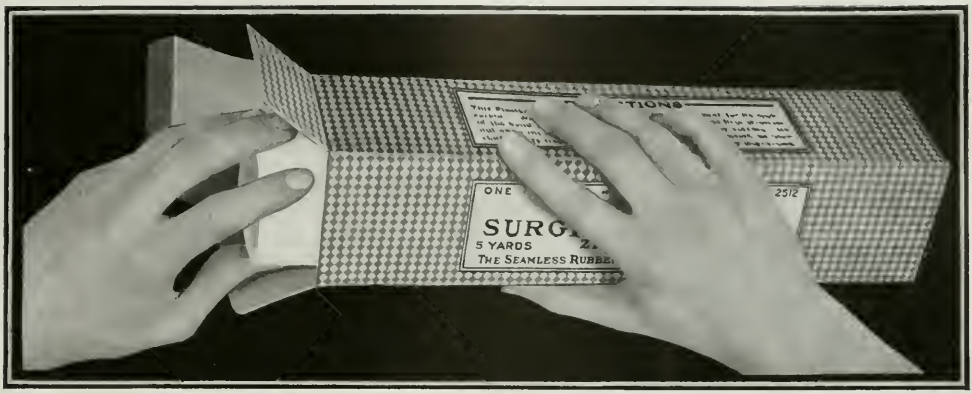

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MEETINGS, CONVENTIONS AND CONFERENCES

AMERICAN CONFERENCE ON HOSPITAL SERVICE HOLDS MID-YEAR SESSION

WHAT the American Conference on Hospital Service is and what it might grow to be; what the Hospital Library and Service Bureau has thus far accomplished and what it plans to do in the future; some of the important factors that go to make the medical service of the community adequate, and dietotherapy, were the main topics discussed at the mid-year meeting of the American Conference on Hospital Service held at the Congress Hotel, Chicago, Wednesday afternoon, March 9. This meeting, for the first time, was an integral part of the annual congress on Medical Education, Licensure, Hospitals and Public Health, participated in by representatives of the Council on Medical Education and Hospitals and the Council on Health and Public Instruction of the American Medical Association; the Association of American Medical Colleges; the Federation of State Medical Boards of the United States and the American Conference on Hospital Service.

The early sessions of the Congress were devoted to the discussions of various aspects of medical education and licensure, including the medical curriculum, clinical subjects, and medical examinations.

At the Wednesday afternoon session, which was devoted to hospital service, Dr. Frank Billings, president of the American Conference on Hospital Service, acted as chairman, and in his introductory remarks indicated the object of the Conference, and announced that it was now comprised of fifteen constituent organizations; three additional organizations, the National League of Nursing Education, the American Dietetic Association, and the National Tuberculosis Association having joined during the past year.

Following Dr. Billings' remarks, Dr. Winford H. Smith, director of the Johns Hopkins Hospital of Baltimore, read a comprehensive paper on "Adequate Medical Service for a Community; Some Factors of Importance." Instead of attempting to offer solutions for some of the pressing problems relating to this subject, Dr. Smith presented a panoramic view of the present status of medical service, with a view to offering a basis on which to develop a more far sighted, constructive program than existed at present. Pointing out that there was much overlapping in activities and organization, he contended that if a well balanced program of medical service is to be developed, there must be closer cooperation of existing organizations. The situation is a difficult one to deal with, but such is the task that presents itself. In carrying out a national health program, Dr. Smith felt that the creation of a national health department was essential. The situation which exists in the public health field was not, in Dr. Smith's opinion, the fault of the public, and would not be cleared up unless a united medical profession cooperated in its solution.

With regard to a community's hospital service, Dr. Smith contended that machinery was badly needed for determining a policy of hospitalization. There must be a policy and standards, and machinery to execute the policy is needed if progress along right lines is to be made. The subject is of vital interest to the medical profession because it is so closely related to medical and nursing education.

Dr. Smith touched upon the need of a more adequate or assured method of financing hospitals; the providing of adequate medical and hospital care for people of moderate means; the desirability of establishing diagnostic clinics organized on the basis of dispensaries, where for an inclusive fee people could secure accurate diagnosis; the importance of dispensaries if properly organized; medical care for the sick in rural communities; the need of clinics for the medical profession in general, as well as for medical students, through which the education of the average medical man could be continued, and he could be kept abreast of the times.

Dr. Smith urged the medical schools to revert to a system of education which would give medical students a more thoroughgoing training in ground principles, contending that the present curriculum was overloaded with specialties. He deprecated the tendency of present day physicians to rely too much upon laboratory findings and mechanical means, instead of upon clinical evidence. Dr. Smith made a plea for the recognition of the status of the hospital administrator, lest soon there be none to administrate our hospitals. It is this lack of recognition of his status that makes it difficult to attract first class men to the profession. There are, however, in Dr. Smith's opinion, indications that the position of hospital administrator may be made more attractive as a career. He felt that teachers in medical colleges should consistently present hospital administration as a definite career to medical students.

Touching upon the question of nursing, Dr. Smith said that the development of nursing should be a matter of pride to all medical men, but that the credit for this development was due solely to the nurses themselves. While he advocated a high standard in nursing education, he felt that the public health movement called for a group

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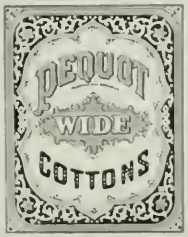

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of women such as trained attendants, to supplement the work of the trained nurses. The nursing department of the hospital, he contended, should be an educational department rather than an institutional department. He said that regulation legislation must first be passed in order to protect the unsuspecting public against the unscrupulous trained attendants who posed as trained nurses. He also touched upon the necessity of adequate hospital provision for convalescents and the physically handicapped.

In concluding his address, Dr. Smith urged his hearers to visualize the whole hospital and health problem, and deal with its different aspects by assignment or common agreement. He suggested as one of the tasks of the Conference the consideration of a constructive program to handle the medical service of the communities in general.

Following Dr. Smith, Miss Lulu Graves, professor of home economics, Cornell University, Ithaca, N. Y., read an illuminating paper on dietotherapy. In opening her address Miss Graves said that dietetics pertained to the proper feeding of anyone, while dietotherapy had to do with the treatment of disease by diet. She said that the hospital was the first institution to employ dietitians and that dietetics touches every phase of it.

Now that this is being recognized, there is a great demand for dietitians, and there are few that are fully trained for the work. Miss Graves regards this as one of the weak spots in our education, since schools on home economics are not prepared to teach the subject, and medical schools and hospitals are not making the changes necessary for this purpose, and she made a plea for the hospital as the logical medium through which to teach the subject of dietetics. She outlined the objects of the American Dietetic Association, calling attention to the fact that it now has five hundred members, all of them eager for a better and broader education; and called attention to the fact that commercial organizations and hotels were rapidly recognizing the value of the dietitian. Women who enter this work, she contended, must be well trained. Such women, she felt, could be prepared by a course in which the modern hospital, the medical school, and the school of home economics were combined.

The report on the Hospital Library and Service Bureau prepared by Miss Donelda R. Hamlin, its director, was read by Dr. Frank Billings. The substance of this report has been covered by Miss Hamlin's article in the March issue of THE MODERN HOSPITAL, "What the Hospital Library and Service Bureau Did in 1920," (page 211).

The session concluded with a discussion of the general theme, The American Conference on Hospital Service, which was participated in by Dr. George E. Vincent, president of the Rockefeller Foundation, in the absence of its secretary, Mr. E. R. Embree; Dr. Ray Lyman Wilbur, president of Leland Stanford University; and Reverend Charles B. Moulinier, president of the Catholic Hospital Association of the United States and Canada.

At the Thursday morning session, which was devoted to a discussion of rural health centers, the subject "Rural Health Centers as an Aid to General Practitioners" was presented by Dr. Victor C. Vaughan, chairman of the Council on Health and Public Instruction, American Medical Association.

The Thursday afternoon session was devoted to a discussion of the organization of the public for health work.

There should be no more thence an infant of days, nor an old man that hath not filled his days; for the child shall die an hundred years old.—Isaiah LXV:20.

CONFERENCE ADOPTS CONSTRUCTIVE PROGRAM

The maintenance of the Hospital Library and Service Bureau, hospital standardization, the training of hospital executives, and the development of higher medical standards and more efficient community medical service through postgraduate teaching, are the broad factors in the policy adopted by the American Conference on Hospital Service at the meeting of its delegates at Chicago, Ill., on the evening of March 8, 1921.

The Conference's program on hospital standardization included: (a) the endorsement of the so-called standards of the American College of Surgeons; (b) negotiations for the transfer of field work of the American College of Surgeons to the Hospital Conference, if at any time the College desires to transfer the work; (c) formulations of additional standards, applicable to follow-up work, statistical reports of clinic work, accounting, nursing, and the like.

With regard to the matter of training of hospital executives, the Conference desires to cooperate with the committee appointed by the Rockefeller Foundation to develop a concrete program for the training of hospital executives.

The items of its policy relating to the development of higher medical standards, and more efficient community medical service through postgraduate teaching, includes the support of the American Medical Association in the further development of intern standards, the promotion of the fifth or intern year as the prerequisite for independent practice, the encouragement of systematic teaching of graduates at hospital centers, and the promotion of plans for the establishment of closer relationship between practitioners and well equipped diagnostic centers in hospitals and dispensaries.

The American Dietetic Association and the National Tuberculosis Association, Incorporated, were elected constituent members of the Conference.

Miss Minnie Ahrens was elected to fill the unexpired term of Miss Edna G. Henry, whose resignation was announced at this time.

The date of the annual meeting for the election of officers was changed from September to the spring meeting, to be held in Chicago at the time of the annual Congress on Medical Education, Licensure, Hospitals and Public Health. The Conference then terminated the terms of officers elected at Montreal last September and also the three trustees whose term of office expired next September, and elected the following officers for the ensuing year: president, Dr. Frank Billings; first vice-president, Dr. A. R. Warner; second vice-president, Miss Clara D. Noyes; treasurer, Dr. Harry E. Mock. Trustees elected for three years were: Rev. Charles B. Moulinier, Miss Minnie S. Ahrens, and Dr. Winford H. Smith.

The accredited delegates present from constituent members of the Conference were Dr. Harry E. Mock, Miss Ida M. Cannon, Miss Harriet Gage, Dr. A. J. Ochsner, Dr. A. R. Warner, Dr. Winford H. Smith, Dr. John M. Dodson, Miss Mary C. Wheeler, Miss Bena M. Henderson, Captain Charles S. J. Butler, Miss Laura R. Logan, Miss Jessie L. MacDonald, Miss Edna L. Foley, and Miss Minnie Ahrens.

The chief art of learning is to attempt but little at a time. The widest excursions of the mind are made by short flights repeated; the most lofty fabrics of science are formed by the continued accumulation of single propositions.—Locke.

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CONFERENCE TRUSTEES MAKE IMPORTANT DECISIONS

At the meeting of the trustees of the American Conference on Hospital Service held Wednesday evening, March 9, several important resolutions were adopted.

One of the resolutions states that it will be the general policy of the trustees of the Conference to recommend for membership in the Conference only such national organizations as are, in its judgment, properly qualified by organization and field activities, and as manifest sufficient interest in the work of the Conference fully to justify membership.

Another resolution provides that, inasmuch as the Conference has adopted a broad program of general policy in order that the constituent members may be assured against hasty or ill considered action which might seem to trespass upon the province of any constituent members, the president of the Conference appoint a special committee to formulate the procedure by which the Conference shall determine upon, adopt, and advocate specific policies, standards, or approved methods of hospital service. This committee will report to the trustees, who in turn will place the report before the next meeting of the Conference with such amendments and comments as may in their judgment seem wise.

It was further decided that in the formulation of this procedure all reasonable precaution shall be given to the constituent members of the Conference against hasty action, or action of doubtful propriety in any field in which a member is actively or inherently interested, without the active participation of such member in the discussion or without every opportunity being given such member to be heard fully on the question. The procedure to be formulated, moreover, will forbid the publication of any adopted policy, standard, or approved methods, unless accompanied by the minority report or substitute, presented by members actively or inherently interested in the question, if such minority report or substitute is presented.

The draft of by-laws for the Hospital Library and Service Bureau presented by the library committee was adopted.

Dr. N. B. Colwell was elected a member of the library committee to fill the vacancy caused by the resignation of Mr. Homer F. Sanger.

METHODIST HOSPITAL ASSOCIATION MEETS IN CHICAGO

The National Methodist Hospitals and Homes Association held its third annual meeting at Chicago, February 16 and 17. A summary of the minutes of the last meeting and a report of the year were read by the secretary, W. H. Jordan of Minneapolis, at the opening session. As Mr. J. E. Holmes of Brooklyn, who was to have spoken on "The Where and Why of Methodist Hospitals and Homes," was unable to be present, he asked Dr. N. E. Davis of Chicago to speak extemporaneously on the subject. Dr. Davis pointed out that the "why" was to be found in the spirit of Christianity. The "where" was shown much more effectively by maps and charts than words alone could have done. There are sixty-nine Methodist hospitals in the United States today, and 160 hospitals and homes. The maps were not complete, Dr. Davis explained, because things have been moving too fast to make that possible unless they could be altered every day. There have been eighteen institutions established in the last six months, which were not included in these figures.

A discussion followed Dr. Davis' speech concerning the location of hospitals, the importance of not placing them so close together that each cannot accomplish the maximum of service possible, and the necessity of allowing the need of the community and not the desire of a particular association to determine the placing of the hospital.

On Wednesday afternoon Dr. Frank C. English of Cleveland, O., read an interesting paper on the "Correlation and Cooperation of Protestant Denominational Hospitals and Homes," in which he gave illuminating statistics regarding the number of hospitals and homes in the United States, with particular reference to those maintained by Protestant denominations. He also outlined the organization and program of the Protestant Hospital Association, indicating that in the organization of the Association there were four main departments devoted to coordination of denominational hospital activities—education, particularly of nurses; equipment and architecture; service; and finance.

Dr. N. E. Davis of Chicago followed with an address on the "Relation of the Board of Hospitals and Homes to the Individual Institutions," in which he indicated the specific province and limitations of the Methodist Board of Hospitals and Homes. The activities of this board are devoted to making surveys and studies, collecting and transmitting authoritative information, and rendering expert service along architectural and financial lines.

The session concluded with an address by Mr. J. M. Hancher of New York City on "Methods of Finance and Financial Campaigns."

On Thursday morning, February 17, after a short talk by President E. S. Gilmore on the magnitude of the service which is possible in any hospital, Ralph Welles Keeler of New York City read an extremely interesting paper on hospital publicity, "Putting Hospitals and Homes into the Hearts of the People." He mentioned all of the channels of publicity open to the hospital, showing how each one could be used to the best advantage, placing especial emphasis on personal letters, filled with the personality of the hospital, and hospital notes in the local papers. Mr. Keeler gave concrete examples to make everything he said very vivid and convincing.

Mr. C. W. Woods of Indianapolis spoke on "Hospital Standardization." He began by saying that hospitals are the most chaotic institutions which we know in America today. That is due, he continued, to the fact that they are still young and that they are very many sided. This condition must end, however, and the standardization suggested by the American College of Surgeons is undoubtedly the way to end it. If in the judgment of experts, hospitals are falling short of their greatest service to humanity, it is time that they left their "lawless" condition. Mr. Woods made a plea for a different word than standardization, for he said that he did not feel that this expressed exactly the right thing, and that we are becoming altogether too standardized. You cannot standardize hospitals in the exact sense of the term, any more than you can standardize people. But Mr. Woods, in conclusion, asked the Association for a written expression of an intention to adopt as quickly as possible the thing which is meant by standardization.

The Association was entertained at the Wesley Memorial Hospital at lunch, and held its closing session there. Mr. J. B. Jones of Delaware, O., and Miss Alice Thatcher of Cincinnati spoke on "Standardization of Homes and Training Schools"; C. W. Williams of Boston gave "Practical Suggestions on Building, Equipment, and Cooperative Buying"; and the session closed with an address by Bishop Shepard, of Portland, Oregon, on "The Challenge of the Future."

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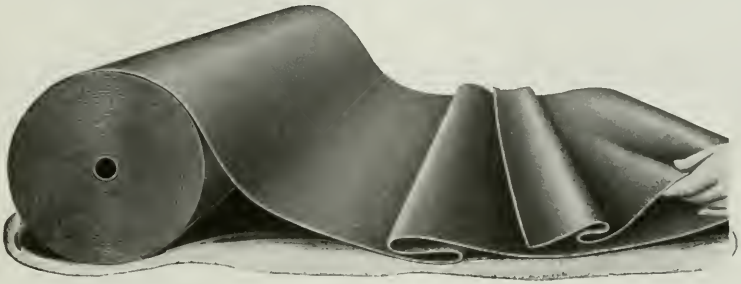

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Book Reviews and Current Hospital Literature

CLEVELAND STUDIES ITS HOSPITAL AND PUBLIC HEALTH FACILITIES*

CLEVELAND SURVEY SUGGESTS A BASIC COURSE FOR NURSES

By MARY M. ROBERTS, The Bancroft, New York City.

The Cleveland Hospital Council has performed a valuable service for nursing education by publishing the results of its comprehensive Hospital and Health Survey, at a time when many plans are being made for meeting the increasing demand for nurses. For the first time in the half century of struggle from the system of apprenticeship toward full professional status, schools for nurses have had the searching light of inquiry thrown upon them and have been evaluated according to certain definite standards.

One pauses to admire the courage and social vision of the Cleveland health workers which has made this scientific analysis possible, and it is only logical to predict that this unusually generous and cooperative spirit will speedily result in radical reform.

The work of the investigators was based on the concept of the school for nurses as an educational institution, with the same need of hospital service that is found in the medical school. This at once brought out the necessity for sharply differentiating between the education of nurses, and "nursing the hospital," and of treating each problem separately. Cleveland schools seem fairly typical, both in spirit of devotion and in educational weakness, of American training schools. It therefore seems probable that every training school in the country will want a copy of the "Nursing Section" in order to begin a similar self-analysis.

Educational methods were found to be faulty and wasteful. For example, student records showed practice most imperfectly correlated to theory and time spent on surgical services out of all proportion to its educational value indicate that Cleveland students may spend from two to eight hours daily, "as occasion arises," in non-educational duties of a routine or housekeeping character!

Cleveland is justly renowned for its public health work, but few students have the advantage of this affiliation. The same oversight is true of opportunities for training in the care of communicable diseases, and for clinic service. The need of a broader curriculum is dwelt upon and the importance of providing larger numbers of well educated instructors and administrative nurses is forcefully stated. An improvement in teaching equipment is shown to be almost imperative. These are only a few of the outstanding points in a carefully detailed study, but they are sufficient to indicate the basis for recommendations.

Cleveland has thirteen registered schools with a wealth of clinical facilities. It has an open minded university that has already proven itself most sympathetic to nursing. It has workers "with the eyes to see and the will to do." The first recommendation of the survey, therefore, is that a central school be established in the university with the same status as other undergraduate schools. This would insure instruction and supervision of university quality. It would mean also that the work would all be credited toward a degree.

"In order to obtain the necessary ward practice, the training school should make contracts with the several hospitals, whereby the latter should agree to receive students for training in specified branches of nursing; affiliating hospitals should be required to meet the standards of instruction and conditions of work established by the university, in order that the training shall be of a grade equal to that furnished in practice fields of other schools of the university."

The university entrance requirement will, by many, be considered prohibitive, but Cleveland's figures show that 83 per cent of the students now in training in five schools are high school graduates.

Such a plan would make it possible to offer to all students a "basic course" of approximately two years and four months, leading to a diploma. This course, shortened in time by the elimination of non-educational duties, would not be materially curtailed in content, but specific recommendations for a curriculum for a basic course are withheld until the completion of the national survey now being conducted.

Nurses completing the basic course would be available primarily for bedside care, and the "shortened course" would thus meet the requirements of the student who is unwilling or unable to give a longer time to preparation, and would also help to fill the ranks for private duty.

Such a school, with its extensive resources, could readily provide courses for those who wished to continue (or to return) in preparation for administrative or teaching positions, for public health work, or for specialties in

*On page 92 of the January, 1921, issue we announced the completion and publication of the Cleveland Hospital and Health Survey and published a brief review, dwelling particularly on the volume (one of eleven) devoted to the hospitals and dispensaries of Cleveland. Such is the outstanding importance of this study, however, that THE MODERN HOSPITAL has decided to publish reviews by well qualified writers of the various volumes which comprise this study. The three articles in this issue by Miss Gertrude B. Knipp, Miss Mary M. Roberts, and Mr. Jules Scheritz comprise the first group of these reviews. Others will appear in the May and June issues.

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private duty. These courses, in combination with certain cultural courses, would make it possible to secure both the diploma and the bachelor of science degree within a total period of five years. Thus provision is made for meeting all of the varied demands upon a rapidly growing profession.

The investigators believe that the dignity and worth of sound educational procedure, if coupled with suitable living conditions and reasonable hours, will attract the increased number of students so necessary to meet the ever growing demands of that public which nurses are privileged to serve. The plan seems one capable of putting Cleveland in the van of the whole field of nursing education, "an enviable position she already occupies in certain aspects of it."

A PROGRAM FOR CHILD HEALTH

By GERTRUDE B. KNIPP, Executive Secretary, American Child Hygiene Association, Baltimore, Md.

To workers in the field of child hygiene, the special significance of the section of the Cleveland Hospital and Health Survey Report which deals with the health of mothers and children lies not in its evaluation of local conditions—interesting as that evaluation is—but in the carefully elaborated, well rounded program for future child health work which accompanies it. The report was prepared by the director of the infant and maternity survey, Dr. S. Josephine Baker, chief, Bureau of Child Hygiene, Department of Health, New York City, and credit is given to special studies made by Gertrude Sturges, M.D., Michael Davis, Ph.D., Anna Richardson, M.D., Miss Josephine Goldmark, Miss Elizabeth Fox, Miss Janet Geister, and Miss Florence V. Ball. It constitutes Part III of the complete report, and is published under the title "A Program for Child Health."

The Survey does not attempt to give the historical development of child hygiene in Cleveland, but begins at once with a brief analysis of the work as it is carried on at the present time; a discussion of the basic needs, and recommendations as to measures which should be instituted to obtain more effective results. Reference is made to the four great features of Cleveland's child caring program: (1) The prenatal and maternity services for expectant mothers, originating in the work of the Maternity Hospital, and now shared in by other hospital and nursing agencies; (2) The Babies' Dispensary, which serves the whole city in the diagnosis and treatment of the ills of infancy; (3) The prophylactic baby health stations of the divisions of health, which serve by teaching mothers how to keep well babies well; (4) The system of school medical inspection, under the board of education. The creditable infant mortality rate, the widespread public interest in the necessity for the correction of physical defects, and the resources for maintaining children's health are pointed out as logical results of these activities. The Survey has emphasized, however, according to the report, "lack of strong central control and effective coordination of the activities for child welfare as a whole."

To secure coordination and continuity the initial steps recommended are: First, the establishment of a Central Child Hygiene Council as a part of the general health organization of public and private agencies that is proposed for the City of Cleveland, the Council to be representative of every private and public agency dealing with any phase of health supervision.

Second, closer cooperation between the divisions of health and board of education (the medical inspection of schools being under the control of the latter board), and between these public departments and private health agencies, the latter to be secured through appropriate representation in the committees of the Central Child Hygiene Council. The Council itself is to act in an advisory capacity.

Special recommendations, all of which repay the most careful study, are made for each functional group, from the prenatal period through adolescence. The following are of particular interest because of the attention that is focused at present on the age groups indicated, largely as a result of the findings of the draft examinations.

Pre-school Age: The importance of caring for this group is emphasized, and it is pointed out that the greatest gap in continuous supervision of child health occurs in this field. It is recommended that immediate steps be taken to provide facilities for such supervision through health centers under the division of health, as a continuation of the work of infant care.

School Age: In order that the health of the child of school age may be adequately protected it is recommended that there be coordination of all services dealing with health: that is, of the departments of school medical inspection, physical training, sanitary supervision, and the teaching of health education, under the control of a single individual, a full time employee, and preferably a physician, at a suitable salary.

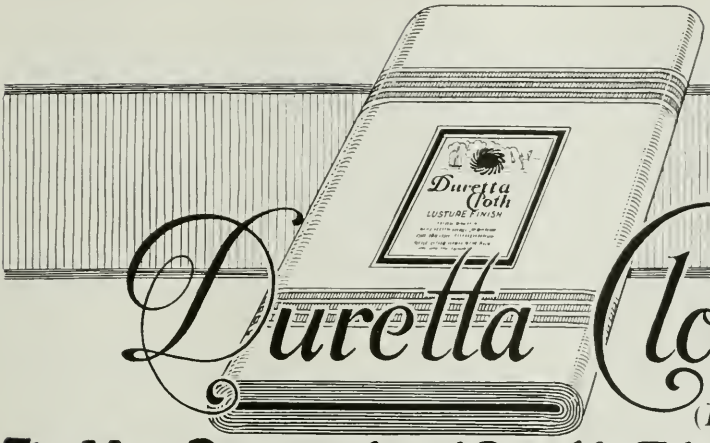
It is further recommended in this connection that physical examinations be made of all pupils in the school in the following order: (a) Children entering school for the first time. (b) Children especially referred by teachers or nurses. (c) Children in the third grade. (d) Children in the sixth grade. The latter are urged as strictly preventive measures, extensive investigations having shown, as the report points out, that the number of physical defects found in school children reach their height in the ten to twelve year period, and that the time to detect physical defects is, therefore, when they first appear or when they are increasing in frequency.

The importance of undernourishment, with its resultant defects, is duly considered, and it is recommended that at the time of physical examination every child have its weight and height recorded with its degree of undernourishment, that the undernourished child have individual health instruction from a doctor or nurse in the school, and its school life adjusted to meet its particular needs.

Health Records: It is recommended that the child's health record be continuous and reach from the health center, through the pre-school age, school age, into the junior high school or high school, or even follow the child until its entrance into industry.

Health Education: In view of the fact that "health education of all children may be regarded as the most important part of any program of health supervision," and that the most important fundamental provision for community health in the future lies in each child's gaining and applying the knowledge which is essential for the maintenance of personal health and for the extension of those forces which promote the health of the people as a whole, it is recommended that health education be considered a function of the teaching staff; that a complete plan of such education throughout the school system be worked out, and that health education be compulsory, not elective.

The mere fact that the Survey was undertaken in one of the cities that pioneered in child hygiene activities, marks a distinct advance in this phase of public health. Child hygiene as a definite part of the public health program has had its principal development in the last decade. Like other features of the larger program for public health, each initial activity has been undertaken in re-



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Mention THE MODERN HOSPITAL.

sponse to an immediate need or as a result of the stimulus of a suddenly aroused social conscience, and the development has been from such nuclei rather than according to a prearranged, definitely articulated plan. The recommendations of the diagnosticians who were called upon to study the Cleveland situation furnish such a plan and give perspective to the whole field.

As to the actual findings of the Survey, it must be recalled that it was undertaken soon after the close of the World War, when nearly every activity throughout the country that was concerned with the health of mothers and children was crippled or retarded through the shortage of doctors and nurses. In this respect, the picture of local conditions, and of their constructive needs, applies with equal fidelity to practically every city or town in the country. The recommendations as to a constructive program are equally applicable to these other communities. In this way, the program becomes a working manual, not simply for the group concerned with the improvement and conservation of child health in Cleveland, but for all groups that are dealing with similar problems.

TUBERCULOSIS IN CLEVELAND

By JULES SCHEVITZ, Executive Secretary, Oklahoma State Hospital, Oklahoma City, Okla.

No better choice could have been found for the conduct of this important branch of the survey than Dr. Donald B. Armstrong, executive officer of the Framingham (Mass.) Community Health and Tuberculosis Demonstration.

Dr. Armstrong divides his report into three sections: the statistical record of tuberculosis in Cleveland, the general provision for attack and defense against tuberculosis, and the special provisions for fighting tuberculosis. Cleveland's death rate from tuberculosis has witnessed an almost steady decline up to the year 1900, and since then the tendency has been upward. This increase is particularly noticeable during the period 1914 to 1917, when the death rate increased from 131.7 to 174.0 per 100,000. However, the average rate for Cleveland compares very favorably with other cities of its size.

The ratio of reported cases of tuberculosis to annual deaths during a given year was four and seven-tenths to one in Cleveland. In Framingham, Mass., this ratio was increased to nine to one. Of a group of 500 cases classified according to the stage in which they were reported by the physicians, 51 per cent were reported in the first stage; of another group of 500 cases at the health centers, 43.6 per cent were classified as early cases. In Framingham, where a special effort has been made to encourage prompt reporting, the percentage of early cases has averaged 74 per cent during the last three years. "It is evident," concludes Dr. Armstrong, "that something could be done to improve upon this factor. The discovery of the disease in its early stages, in order that treatment may be applied when most effective, is of vital importance in the control of the disease."

One of the most interesting phases of the entire report deals with a study of milk consumption. Nutrition is of basic importance in the incidence of disease and is probably of special importance in the causation of tuberculosis. It was found that 920 families were taking 1,480 quarts of milk a day, or 1.61 quarts per family. The 920 families included 2,852 children, and an the basis of one quart per child per day, and one pint for general family needs, the total daily requirements would be 3,312 quarts. Consequently the families received 44 per cent of the amount of milk necessary, or at least desirable. Considering the nutritional properties of milk, particularly in the child's diet, every effort should be made to increase the milk consumption. The Consumers' League of Ohio proposes to undertake the installation of milk stations throughout the city where milk will be sold at cost.

Cleveland has numerous provisions for fighting tuberculosis. Through its division of health, seven health centers are maintained, and at each, five tuberculosis clinics are held weekly, one session being at night. The physicians in charge are for the most part young men who have had no special training for their work. In 1920 Cleveland provided eight hours of tuberculosis clinic service per week per 100,000 population, while Boston offered twenty hours, Philadelphia thirteen hours, New York and Cincinnati ten hours, St. Louis nine hours, Buffalo six hours, and Detroit five hours. The Bureau of Tuberculosis was without a head further handicapping the work.

A study made of the effectiveness of the nursing work in Cleveland as it touches the tuberculosis problem, indicated that active cases were not visited with sufficient frequency, (once a month or less); arrested cases, suspect and contact were seen only once in two to six months; that the individual nurses have too many cases and too large a territory to cover; and that the pressure is too great to permit of much activity on the part of the nurse in the direction of finding new cases. Dr. Armstrong expresses the general concensus of opinion that the generalized form of nursing provides many advantages to offset the few defects, even from the tuberculosis point of view.

The institutional provision for pulmonary cases consists of the Warrensville Sanatorium with a capacity of 254 beds for early cases, maintained by the city, twenty-three beds set aside at the Ohio State Sanatorium, 100 beds for advanced cases at the City Hospital, six beds at the state insane hospital, and ten beds scattered among the general hospitals, making a combined capacity of 393 beds. The equipment and management of the Warrensville institution is highly praised, while deficiencies are noted in the case of the City Hospital. For nonpulmonary diseases 125 beds are available, making a total provision of 518 beds. Between ten and twelve hundred persons die annually of tuberculosis, and basing the available bed capacity on the ratio of one bed for each annual death, there should be in Cleveland a minimum of one thousand beds. The additional provision should be used to increase the facilities for early cases, for advanced cases, for children with open active tuberculosis, for surgical cases, and also to establish a preventorium for children under five years of age.

The chief deficiencies in Cleveland's machinery are in the field of detection and treatment of tuberculosis, education and organization. In order to supplement the existing machinery for the detection of tuberculosis, Dr. Armstrong recommends a postgraduate training course in tuberculosis at Western Reserve Medical School, the establishment of an expert consultation service, and routine examination among infants, in schools and factories. A complete educational program should include education against infection, against disease, and against mortality, these being the three modes of controlling the tuberculosis problem.

With reference to improvement in organization, it is recommended that a full time chief for the bureau of tuberculosis be appointed, that increased attention be given to the study of tuberculosis by the bureau of statistics, that there be a material increase in the public health nursing staff, and that the Anti-Tuberculosis League carry on an intensive health educational program.

It is the belief of Dr. Armstrong that Cleveland will in time adopt these recommendations for "Cleveland possesses the knowledge, the resources, and the spacious-minded leadership essential to the task."

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

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THE CHAS. T. MILLER HOSPITAL, ST. PAUL, MINN.

By STIRLING HORNER, of the Staff of C. H. Johnston, Architect, St. Paul, Minn.

WHEN the board of trustees of the Charles T. Miller Hospital announced the purchase of an irregular tract of land lying between Summit and College Avenues and extending through on a third side to Rice Street, three thoroughfares of quite different elevations and grades, a complex and unusual problem of hospital planning was presented for architectural study.

After some weeks of careful study, involving problems of administration, orientation, traffic, topography of site, and approachability, it was thought advisable to place the main façade and entrance on College Avenue, a street of somewhat less importance, perhaps, than Summit Avenue, but having a considerable lower elevation. College Avenue carries materially less traffic than Summit, and the cars of visiting physicians and others offer no impediment, a condition which might be very burdensome at times on the busier avenue.

The entrance of the Charles T. Miller Hospital, St. Paul, Minn.

The difference in street elevations seemed at once to declare for an administrative, interns', and service floor at College Avenue elevation, with the first typical ward and patients' floor slightly above the Summit Avenue elevation on the northwest side of the property. The existing topography, with the ground falling away sharply to the southwest made possible an ambulance entrance to the first floor in the southwest court, with a driveway extending clear through the block, a service entrance and driveway in the northeast court at ground floor grade, and nurses' entrance on the Summit Avenue side slightly above grade. This location for the building left the level tract on the northwest available for the contemplated children's hospital and nurses' residence, without which the group is incomplete.

When the plans had reached this stage of development, the Amherst H. Wilder Charities, whose directorate was partially interlocked with that of the Miller Hospital, began negotiations which culminated in the purchase of adjoining property upon which it is planned to erect a free dispensary and out-patients' clinic,

The foyer of the hospital.

operated in conjunction with and by the staff of Miller Hospital, with which it is to be connected by subway.

The hospital accommodates two hundred and sixteen patients. There are fifty free beds disposed in one, two, four, and six-bed wards. All other patients are in private rooms, each having individual toilet and lavatory accommodation, and in most cases, baths. The rooms throughout have been attractively furnished, avoiding so far as possible the cheerless white enameled furniture of the stereotyped hospital room.

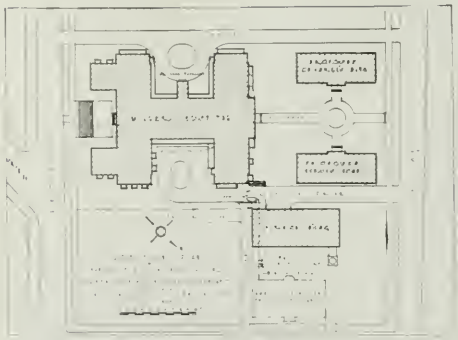
The north wing of the fourth floor provides for the operating section, obstetric rooms, and laboratories. The operating suite, with five operating and the necessary accessory rooms, completely supplied with all modern surgical equipment and appliances, occupies the north end of the wing, with the delivery, wash-up, sterilizing rooms, and nursery at the opposite end of the corridor. The nursery has been made a part of this section to avoid the attendant noise disturbing the maternity patients in the south wing. This departure from the usual placing of the crèche in close proximity to patients' rooms is proving very satisfactory and practicable.

In general, the diet kitchens and service rooms on each floor have been grouped in the central portion of the building, accomplishing ease of food distribution, convenience in handling cases requiring surgical dressings, and special facilities for examinations. A feature of this group of rooms is the inclusion on each floor of a small room where flowers are received and arranged before being taken to the patient, and where they are stored for the night also.

The main passenger elevator extends to the roof house. The major portion of the roof scheme is as yet unfinished, but this space will eventually be reclaimed for convalescent porches, recreational spaces, and for the outdoor care of suitable cases.

An exterior view of the hospital.

The handling of kitchen stores is planned much on the principle employed in large modern hotels. All stores are received, checked, and stored by the steward, and issued on daily requisition. A freight elevator connects the receiving lobby with the basement storerooms and a large root cellar conveniently placed under the service driveway. The general diets are taken in fireless cooker conveyors to the diet kitchens on each floor, from which they are served directly to the patient. Special diets are prepared in the dietetic kitchen on the first floor and served directly therefrom via electric elevators. The entire basement story is of the same general height as the typical floors. It is occupied at present only in part by stewards' storerooms, hospital storerooms, and a complete x-ray department.



The location plan of the Charles T. Miller Hospital and the Amherst H. Wilder Free Dispensary.

The power plant and laundry are housed in a separate structure adjoining the main building on the north, and connected with it by both pipe and service tunnels. The hospital group is heated by means of Webster two pipe vacuum system making use of the exhaust steam from the engine units. This first winter of operation has demonstrated the practicability of this installation. Perfect circulation has been maintained with from one to two inches of vacuum on the mains. The boiler room is equipped with two 250 horsepower Connelly water tube boilers served with type E stokers and vacuum ash conveyors. The pump room contains vacuum, boiler feed water, and service pumps, feed water and domestic water service heaters. Power is obtained from two Ridgeway four valve engine generator units of 150 and 75 K.V.A. capacity, with selective turbine or motor driven excitation.

The switchboard comprises the usual arrangement of generator, exciter and service panels, including Bristol strip recording wattmeter, for both light and power loading, and an integrating wattmeter on the totalizing panel.

Complete duplication of units for breakdown service is installed. The switchboard is also connected with the central power company's service for night use when the plant is operating under a light load. A complete installation of indicating and recording meters, coal scales, indicating draft gauge, CO_2 meter, indicating pyrometer, and Venturi meter give the chief engineer a complete check on boiler performance. All toilets, utility rooms, serving rooms, kitchen and operating suites are mechanically ventilated. Vacuum cleaning facilities are provided for the entire group.

The second floor of this building is entirely occupied by a completely equipped laundry connected with the service tunnel by an automatic elevator. Plumbing fixtures throughout are of porcelain or vitreous china. Lighting fixtures in patients' rooms are fully enclosed, dust proof, indirect units with two lamps controlled on separate switches for either regular or dim illumination. A silent nurses' call system is in use, with

The attractive kitchen of the hospital.

The switch board of the power plant.

annunciators installed in specially constructed nurses' desks located at corridor intersections. The switches for the staff register are located in the corridor outside the doctors' coat room, with

The power house and laundry connected with the hospital.

the register board directly above the telephone switchboard in the main office. This arrangement has proved of great convenience in connection with the musalophone, as incoming calls for physicians in the building are cared for by the telephone operator without leaving her position.

Glass enameled, flushing clothes chutes open into soiled linen closets on each floor and into a large room in the basement in which the linen is sorted and examined before being trucked through the tunnel to the laundry. Adjoining the soiled linen room, in the basement, a sterilization unit is installed for the disinfection of bedding and patients' clothing. The kitchen, serving, and utility rooms and the mortuary in the service building are equipped with built-in porcelain enameled refrigerators chilled with a circulating brine system.

The group of buildings is designed in Renaissance style, executed in red colonial brick and Bedford limestone. The buildings have been made completely fireproof by using a reinforced concrete skeleton type of construction.

Serving room and corridor floors and stairways are of terrazzo. All utility rooms, private toilet rooms, and operating rooms have tile floors with glazed tile wainscots. The public toilets have tile floors and marble wainscots. The entire kitchen and service section, including corridors, has tan colored salt glazed brick wainscots, with red quarry tile floors. Patients' rooms have wood floors and walnut stained birch trim. Operating rooms, toilets, and utility rooms are in gray enamel.

The plans for the service building contemplate two additional stories, housing male and female domestic servants. Future growth of the institution will necessitate the addition of a children's hospital and nurses' residence on the Summit Avenue side of the property.

No description of this hospital plant is complete without reference to the efficient organization which has been brought together by the superintendent, Dr. Louis B. Baldwin, under whose directions the plans were prepared and to whom the architect is indebted for many helpful suggestions during their perfection.

HEALTH AGENCIES TO BE HOUSED UNDER ONE ROOF

Arrangements have been made by a "Common Service Committee" representing the American Social Hygiene Association, the National Committee for Mental Hygiene, the National Organization for Public Health Nursing, and the National Tuberculosis Association, for two floors of the new Penn Terminal Building at 370 Seventh Avenue, New York City, to house the executive and office staffs of several health agencies. These agencies are: The American Public Health Association, American Social Hygiene Association, Bureau of Social Hygiene, National Child Health Organization, National Health Council, National League for Nursing Education, National Organization for Public Health Nursing, National Tuberculosis Association, and a branch office of the United States Public Health Service.

The American Society for the Control of Cancer, the Health Service Department, the New York Chapter of the American Red Cross, and other organizations are considering moving to the same building.

Efficient and economical administration of these activities will be promoted by this arrangement, for, though each organization will retain its own independence, there are certain things, such as storage, distribution of materials, telephone, rest room, library facilities, etc., which can be carried on in common. Further plans for cooperation are now being considered by the National Health Council.

DR. PONTON TO SURVEY CANADIAN HOSPITALS

Dr. T. R. Ponton of the Vancouver General Hospital, Vancouver, B. C., recently began a survey for the American College of Surgeons of all the hospitals in the Dominion of Canada of fifty beds and over. Dr. Ponton will make this survey in one continuous trip, starting from Vancouver and working east. The survey will probably take about four months.

Five physicians on the staff of the American College of Surgeons are now surveying the hospitals located in the United States, giving particular attention to the hospitals of 100 beds and over that are not on their 1920 approved list. Hospitals with a bed capacity of from fifty to 100 beds located on the itinerary of these men are also being visited. The results of these inspections will be published in the American College of Surgeons' 1921 list of approved hospitals.

The Hospital Library and Service Bureau has found its list of architects connected with the hospital field to be so successful that it is compiling a list of landscape architects who have done institutional work.

THE FINANCIAL CAMPAIGN AS A METHOD OF RAISING MONEY FOR HOSPITALS

By MARY FRANCES KERN, Director of Financial Campaigns, Chicago, Ill.

FEW American communities have an adequate number of hospital beds. In some, therefore, new hospitals need to be built; in others, existing hospitals need to be enlarged and more completely equipped. To meet these requirements, funds are of course needed. How are they to be secured? One of the methods, to be described briefly here, is the method of the financial campaign, or, as it came to be known during the war, the "drive." In most instances this method has been found successful, especially when the campaign was conducted by a thoroughly qualified director.

The fund-raising campaign has been developed through various stages into a definite business. Institutions such as schools, colleges, universities, hospitals, sanatoriums, homes for the aged and orphans, and welfare centers now consult with campaign experts just as they consult with attorneys, expert accountants, advertising agents, or other specialists. This has come about through the demand for competent executives who have devoted their time and talent to intensive study of organization and financial appeal. With the five great liberty loans in mind, it is easy to fall into the error of thinking that financial campaigns were the outgrowth of the World War, and to forget that campaigns of this character were conducted successfully long before 1914.

In undertaking a financial campaign, one of the most important steps is the selection of the campaign director. Many of the qualifications for this position are obvious, but above all he must be a person of experience and absolute integrity. To put a hospital financial campaign in the hands of an inexperienced director is to run grave chances of failure. Promotional concerns interested solely in securing contracts, offer many roseate promises and point proudly to their carefully worked out plans. This is dangerous on its face, for a campaign must have an individuality and a distinction of its own based on a careful study of the needs of the community and of the sources from which support is to be drawn. If a director lacks the experience and training necessary to apprehend these differences, the campaign is likely to become an unhappy fiasco.

With the pledged cooperation of all the friends of the hospital, and a staff of seasoned executives to conduct the campaign, the hospital's chances of success are good.

Procuring funds, you will discover, is only a part of the benefit to be derived from the campaign. In a well-conducted drive the hospital will win many staunch supporters, and build up a backing, the value of which is often greater than the money secured through the campaign. The head of a prominent hospital, in commenting on a successful campaign through which his institution had just passed, said, "The value of a drive in reviving interest in the hospital and in making new friends for it is incalculable. I would much rather have $500,000 from 50,000 men and women than $1,000,000 from a few hundred wealthy patrons."

By your effort, the public is educated through campaign publicity. It learns what you have achieved in the past and what you desire to do in the future. It learns the importance to the community of a modern, well conducted hospital. It tends to overcome the impressions of many intelligent, but ill informed people, that the hospital is a place to which their friends may be taken only in extreme need.

Under the stimulus of the campaign, the already existing hospital is apt to undergo a thorough house cleaning, even though the headquarters of the campaign are away from the institution itself. Shortcomings in organization, in administration, and in equipment are brought to light and the effect of the searching scrutiny of all departments is unquestionably beneficial.

In short, the effect of a campaign on the community is best described in an editorial which appeared in a Middle Western daily recently, at the close of a successful hospital financial campaign. The editorial runs in part as follows: "The campaign raised the dormant enthusiasm in community spirit in this county, which has been hitherto undeveloped, and in fact, it is our belief that the effort along this line is actually of more importance to the whole district than the $300,000 which was raised for our hospital; . . . not only was this community left a hospital, but also a stimulus to encourage the people here to do big things, things which before seemed impossible."

As has already been pointed out, conducting financial campaigns is a business, and every phase of the campaign should be businesslike. In the first place, the directing organization should be employed at a definite salary. In the early days, campaign directors were employed on a percent-

age basis, and many people refused to contribute because they did not wish to see part of their subscription go to promotion. This reason for refusing to give no longer rings true, for all of the expenses of the drive under the new method are underwritten in advance by the hospital board of directors, or by an interested group of citizens. One hundred cents of every dollar subscribed goes to the hospital.

In the second place, all disbursements of the campaign should be passed upon by a finance committee and at the close of the campaign an auditor should examine the committee's books and make a public report. In this way every cent expended by the directing staff is accounted for to the trustees, or whatever group of citizens underwrites the expenses of this campaign.

In the third place, an auditor should be employed to receive all moneys collected during the campaign. He should keep an accurate account of all receipts and at the close of the campaign turn the funds over to the hospital authorities.

In the light of results, the cost of a well conducted, businesslike financial campaign should be extremely low. For example, a campaign for a goal of $300,000, which terminated this year, came to a successful conclusion at a total cost of less than 3.5 per cent. It is believed that within the year the efforts put forth in this campaign will bring the hospital nearly half a million dollars, making the total cost about 2 per cent. Conditions vary, however, and the cost of raising the funds in some communities will run higher. Yet 5 or 6 per cent is merely the interest on the desired fund for one year and you have no principal or further interest to meet.

THE NEW CHILDREN'S BUILDING OF THE NATIONAL JEWISH HOSPITAL FOR CONSUMPTIVES

By MRS. S. PISKO, Secretary, National Jewish Hospital for Consumptives, Denver, Colo.

EIGHT decades ago George Bodington, a country practitioner of Warwickshire, England, established in Sutton, the first sanatorium in the world based upon the use of a generous diet, fresh air day and night, and careful medical supervision for consumptives. He had been effecting cures for several years when he published his results, whereupon there arose a bitter and

Front view of the Hofheimer Children's Building of the National Jewish Hospital for Consumptives.

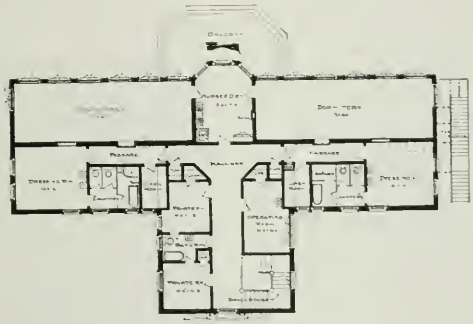
contemptuous opposition to his views and he was compelled to abandon his work. Fourteen years later, in 1854, Herman Brehmer, being attracted by the ideas of the English doctor, succeeded in spite of ridicule and opposition in founding his sanatorium, which was opened in 1859, at Goerbersdorf in Prussian Silesia. It was through the efforts of Brehmer and his supporters that the value of the open-air treatment of tuberculosis was finally established. In America, Edward L. Trudeau was eager to test the methods of Brehmer, and in 1884, after having himself benefited by the open-air treatment in the Adirondacks, the "Trudeau Sanatorium" was started. A beginning was made with small donations, a few acres of land, and two small buildings. This was the pioneer sanatorium of America and has set the example for the establishing in this country of a large number of private and public sanatoriums for the treatment of all stages of tuberculosis. In France, more than any other country, the efforts were directed toward combating the disease

Rear view of the Hofheimer Children's Building of the Memorial Jewish Hospital for Consumptives.

in childhood. In 1888 there was founded by private initiative, a society called "L'Oeuvre des In-

fants Tuberculeuse," which was recognized as a public utility by a decree of the French Government in 1894. Their hospitals of Ormesson and of Villiers admit consumptive children in every stage. At Davos in Switzerland, one of the most famous sanatorium centers in the world, is situated Dr. Turban's sanatorium opened in 1887. Here has been established a class of "Prophylactiker" made up of children of consumptive parents, who are educated, physically and mentally, so that they may avoid the disease of their parents.

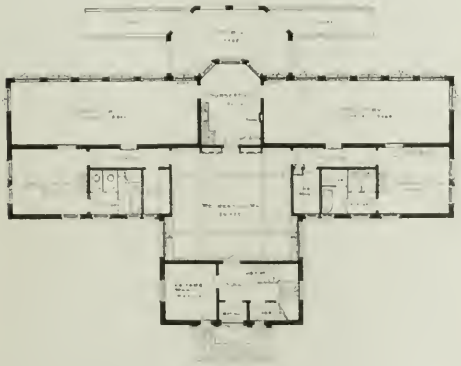
The National Jewish Hospital for Consumptives of Denver, Colo., was established in 1899, as a sanatorium for tuberculous patients who are unable to pay. Starting with a single building, "A monument of deeds, one that marks no creeds," and supported entirely by Jewish philanthropy, it has gradually grown to dimensions comparable to the best sanatoriums in the United States. Its achievements have been a pride to the Jews of America, and its success had "added another to the great monuments that have marked the liberality of the Jewish people through all ages." There is no charge to patients who enter the hospital. "None may pay who enter, none may enter who can pay." Admittance to the hospital is arranged through local organized charity. Patients are admitted from all parts of the United States.



Plan of the second floor of the children's building.

The following list gives the source of the 3,613 patients treated since 1900:

Alabama	59
Arizona	14
Arkansas	29
California	144
Coloradо	95
Connecticut	54
Delaware	3
District of Columbia	6
Florida	12
Georgia	21
Idaho	4
Illinois	535
Indiana	64
Iowa	29
Kansas	12
Kentucky	104
Louisiana	35
Maine	4
Maryland	29
Massachusetts	72
Michigan	52
Minnesota	101
Mississippi	14
Missouri	264
Montana	0
Nebraska	64
Nevada	0
New Hampshire	0
New Jersey	107
New Mexico	15
New York	1030
North Carolina	5
North Dakota	1
Ohio	385
Oklahoma	10
Oregon	6
Pennsylvania	182
Rhode Island	13
South Carolina	4
South Dakota	1
Tennessee	58
Texas	77
Utah	4
Virginia	28
Wisconsin	50
Washington	11
West Virginia	5
British Columbia	1
Canada	10
England	1
Ireland	2
Russia	7
Scotland	2
Not stated	5



Plan of the first floor of the children's building.

An artistic dining room, such as this one, adds much to the enjoyment as well as the healthfulness of one's meals.

Of the 3,613 patients treated since 1900, 50 per cent have returned to their former occupations, either cured or greatly improved. The following is an itemized list of the results obtained: recovered, 716; greatly improved, 1,337; slightly improved, 543; unimproved, 857; died, 160.

The National Jewish Hospital is located in Denver, a city high above the sea, in the immediate vicinity of the wonderful Rocky Mountains, where the air is clear and dry, and the sun shines nearly every day of the year.

Eleven buildings house the hospital. In addition, there is a seventy acre farm to furnish a daily supply of fresh milk and eggs. It has been with the same philanthropic spirit which has actuated the management of this institution from its inception, that the hospital has recently acquired a new children's building, the gift of Mr. and Mrs. Nathan Hofheimer, of New York. This will greatly facilitate the program of preventive

This spick and span room shows how, in a small building, economy of space may be effected by a combination diet kitchen, drug station, and chart room.

therapy which has heretofore been carried on in annexes to other buildings. The purpose of this building is to offer facilities for the children of poor tuberculous parents—a class of Turban's "Prophylactiker"—and for those suffering from the ravages of tuberculosis. The building has been planned both for efficiency and economy. It is a two story red brick building with a basement and it has a capacity of thirty-six beds. On the first floor is a reception room, a dining and play room for the children, a diet kitchen, dormitories for sixteen beds, with adjacent dressing rooms, bath rooms, toilets, linen room and pantry, and a large porch, fourteen by twenty-five feet, in which it is contemplated to apply heliotherapy. On the second floor are dormitories for sixteen beds, with adjacent dressing rooms and bath rooms, two private rooms with a private bath room for isolation purposes, a small operating room, nurses' room, linen room, and large porch. Heat, light, and hot water are supplied by the central power plant. A special feature of the building is the dormitories. These face the south, and by reason of the large number of windows and transoms are practically open air sleeping porches.

This is a well arranged nurses' room.

The purpose of the building is to establish a preventorium for children who would otherwise live in an environment that would render them susceptible to tuberculosis. They may be sent here for a variable period to be built up by the natural agents of fresh air, good food, and adequate rest, and made strong enough to hold their own in the social complex of city life. In addition it is intended to care for a certain number of orthopedic cases in this building. There are ample facilities in the Grabfelder Medical Building of the hospital to offer every diagnostic and therapeutic agent that a case may call for. In this building, which is adjacent to the children's building, there are complete facilities for all laboratory, roentgenological, and fluoroscopic examinations, in addition to special dental and nose and throat clinics.

Each child is examined fully, upon admittance, and thereafter at regular periods to determine its

The radiation, ventilation by transoms, indirect lighting, and abundance of sunlight are interesting points in this girls' dormitory.

progress. The medical care of the children is under the immediate supervision of specialists in orthopedics, pediatrics, and tuberculosis. The diets and routine life of the children are under the supervision of a competent person. The following is the basis of the routine life of the children: 6:45-7:30, daily shower and dress; 7:30-8:00, breakfast; 8:00-8:45, housework; 8:45-12:00, school; 12:00-1:00, dinner; 1:00-3:00, rest hour; 3:00-5:00, recreation and occupational therapy; 5:00-5:30, supper; 5:30-7:15, recreation or study period.

The children attend school three hours every morning and their work is conducted by an approved public school teacher. The program corresponds as nearly as possible to that used in the city grammar schools and it is planned to accomplish one semester of work in a year. The department of occupational therapy, which provides instruction in craft work, is in charge of a compe-

tent specialist. The children are trained to be nimble with their fingers, quick with their eyes, and original in ideas. The following crafts are chiefly used: basketry, leather tooling, painting, toy making, elementary book binding, weaving and block printing. Children living in an institution are necessarily barred from many of the interests of the normal child, and the tendency is to develop habits of idleness and carelessness. Occupational work to a large extent corrects this evil and is frequently responsible for the development of a latent talent. In many cases these crafts lead directly into vocational training along some original line. Whether or not these crafts are used as a means of livelihood in the future, they at least furnish a possible avocation, and in some measure care for those hours which otherwise may easily undo the years of preventive care. Part of the function of a preventorium is to furnish content of mind through active hands, and thus lay the foundations for a useful, busy life no matter what the physical handicap may be. An appreciation of beauty, and the ability to transform that appreciation into some concrete form is a never failing source of interest and pleasure to a child, and he rapidly becomes skillful enough to make objects of real value.

Diversional therapy cares for these children temporarily confined to their beds by providing simple tasks and amusements. The recreation of the children comes also under this department, and those activities which lead to physical fitness and future personal happiness are given utmost attention. Social activities must cooperate with all the agencies that make for physical upbuilding, and the moral growth inevitably incident to the same wholesome active life.

In this manner, with the generous aid of our numerous friends, we are the agency that takes little children from the slums and tenement districts where frequently we find them pale, anemic, undernourished, and undersized, sometimes with a dulled mentality, and gives them the things that are theirs by birthright, fresh air, wholesome food, adequate rest, and wholesome ideas. In a remarkably short time the pale cheeks take on a rosy color, the dull listless eyes become bright, the child with a backward air begins to laugh heartily, and the undersized child takes on weight. Thus in about a year's time the child is ready to return to the life of the city, but now he is prepared to survive in the struggle.

An elaborate social service follow-up system is organized to watch over these children when they must give up their places to more urgent cases. The management of the hospital insists that the homes of children accepted in the institution be reconstructed before the return of the children, and as they themselves have learned the value of cleanliness and fresh air, they take this knowledge with them not only into their own homes, but into the neighborhood.

IMPROVING THE HOSPITAL FOOD SERVICE*

By HERBERT O. COLLINS, M.D., St. Paul, Minn.

THE help which will be needed in the general kitchen of a one hundred bed hospital, caring for private patients, will be a chief cook, an assistant cook, two maids, one pastry cook, a night cook, and janitor service. In the special diet kitchen there will be required two or three pupil nurses, one maid, with the assistant dietitian in charge, and janitor service.

In such an organization the assistant cook should be sufficiently experienced and competent to take the place of the cook at any time in case of absence or illness, and if she can also substitute for the pastry cook, the organization will be more efficient. In a small hospital the night cook will not be busy all night, and may be given other duties, such as starting some of the operations for the breakfast. But it should be remembered that the midnight supper, usually served the night nurses and night employees, is equivalent to the noon meal served the day force. It should not be too light a lunch, but a substantial meal, well prepared. The night cook, for this reason, should be carefully chosen and paid sufficient salary to insure competent service.

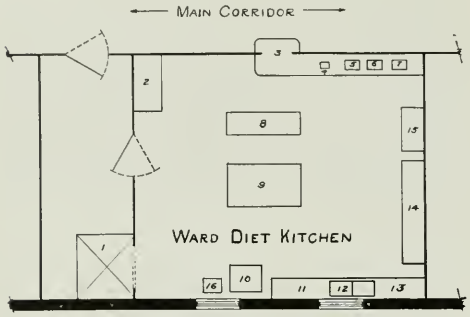
Chief Cook Head of Kitchen Force

It would be impossible, in an article of this kind, to attempt to assign the duties of the various employees in the kitchen. In many of them the titles of the positions are sufficiently descriptive, and the details will need to be left to the judgment of the one in charge. As in all efficient organizations, there must necessarily be one unquestioned head, and in the kitchen such authority will naturally be vested in the chief cook, who in his or her turn will be responsible to the dietitian. A common and successful arrangement of the work is one in which the assistant cook be-

*This is the third of a series of articles by Dr. Collins on hospital food service. The first and second appeared in the February and April issues of The Modern Hospital.

comes largely responsible for the breakfast, the chief cook coming on duty a little later.

Subject to the approval of the dietitian, the chief cook should be held strictly responsible for ordering and receiving kitchen supplies, and for



Plan of ward diet kitchen.

1. Food elevator.
2. Refrigerator.
3. Pass window.
4. Bread cutter.
5. Hot plate.
6. Toaster.
7. Egg boiler.
8. Tray rack (on wheels).
9. Work table.
10. Dish sterilizer.
11. Soiled dish counter.
12. Dishwashing sink.
13. Clean dish counter.
14. Cupboard.
15. Dish warmer.
16. Shallow sink.

their care, except those used in the special diet kitchen. This includes the care and proper use of "left-overs." For this reason, the key to the cook's supply room and to the cook's refrigerator should be in her exclusive possession. She is usually responsible for seeing that the kitchen is kept clean and neat, for the care of all apparatus and utensils, and for the deportment of her force. As her personal responsibility, she frequently assumes the cooking of all meats, leaving the preparation and cooking of the vegetables to the special supervision of her assistant. The maids mentioned in the list of kitchen employees need not be specially skilled in cooking. Their duties will consist mainly in preparing vegetables, washing and cleaning utensils, and some cleaning of the kitchen itself.

If properly organized, the work of the special diet kitchen will be limited to the preparation of special diets. Unless a particular room is equipped for the purpose, as is done in some of the larger hospitals, the beverages served patients between meals may be prepared here, instead of in the ward diet kitchens, with the advantage of having them made by persons specially trained in such work, with the aid of proper equipment. The preparation of desserts and salads for private patients in the special diet kitchen, as practiced in some hospitals, should be discouraged.

If there is an assistant dietitian, the special diet kitchen should be her individual responsibility, leaving the dietitian free for teaching, general supervision, and the consideration of the larger problems of her department. The work belonging properly to the others connected with the special diet kitchen will be easily understood. The pupils nurses assigned there are employed in preparing special diets from approved or prescribed formulae, and in working out dietetic problems connected with the treatment of patients; their work in the special diet kitchen being supplemental to the theoretical teaching they receive in the class room.

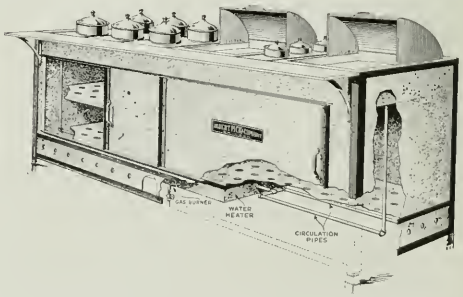
Function of the Ward Diet Kitchen

The ward diet kitchen, if more properly named, would be called the ward serving room, or pantry. Little cooking should be done in this room, as it should be reserved chiefly for the preparation of patients' trays, and the serving of food already prepared elsewhere. The food so prepared is usually sent to the ward diet kitchen in cars, which are either heated or insulated, and placed in a steam table to keep it hot while the trays are being set. A better way will be described later in this article.

A few articles of diet, which need to be specially prepared or served promptly after cooking, may be prepared here. These include such things as eggs, toast, small steaks, and in some hospitals, the cold beverages served between meals. Such work should be limited as far as possible, as it is seldom practical to obtain experienced cooks for each ward, and taking the time of the nurses in this way should be avoided so far as possible. A certain amount of it, however, is unavoidable, if such food as that mentioned above is to reach the patients in a palatable condition.

Special Food Elevator Necessary

A special elevator or dumb waiter, preferably electric, and large enough to take the food cars, should be provided in the building, from the basement to each ward diet kitchen. The same elevator may be used for the removal of garbage



A gas-heated steam table, with a cast iron top, porcelain enameled. It has tight-fitting lap seams and each section is removable for easy cleaning. The top has two oblong meat platters, six cast iron soup or vegetable jars, and three gravy jars. The warming closet is galvanized with sliding doors and two shelves inside.

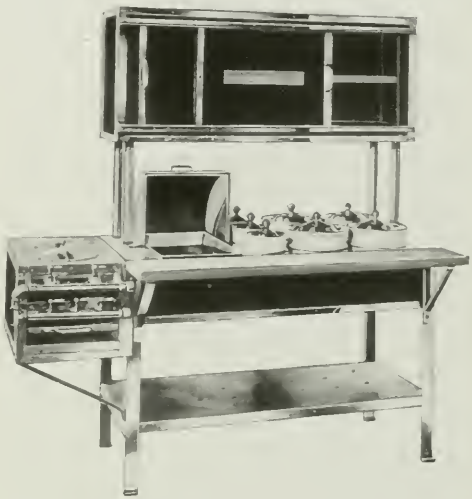
cans and for the delivery of the general supplies of the ward. It is very desirable that such provision be made, as neither the food nor garbage cans should be allowed in the passenger elevator. These special elevators also insure quicker delivery of the food, as the cars are not held up by the other activities of the hospital.

There are various kinds of food cars on the market, but the writer has never seen one that was satisfactory in every way. Many of them are made of wood or metal, without special means of keeping the food hot in transit, making it necessary to reheat it by some means, usually a steam table, after it is received. Objections to this, and the effect upon the taste of many kinds of food, are too obvious to need discussion. There are other cars in which an attempt is made to heat the car by means of hot water compartments, or in other ways, to which the objections are made that they either do not keep the food as hot as necessary, that they over cook it in transit, or dry it out. Electrically heated cars depend for their heat upon an electric unit which needs to be connected with the lighting circuit in order to generate the heat. Obviously there is no heat in such a car while it is being transferred from the kitchen to the ward diet kitchen, the time it is most needed, and at its best the heat from the electric unit is of little use. Also, none of these cars makes sufficient provision for the proper transportation of cold foods.

Fireless Cooker Food Cars Better

Food cars made on the principle of the fireless cooker are now on the market, and come nearer to solving the problem of the proper transportation of food than those above mentioned. The food can be placed in these in the general kitchen, and will remain hot for several hours. The cars are clean and easily cared for, and are found to be an improvement over the other methods. No steam table is needed in the serving room, the trays being set directly from the food car, without the necessity of reheating the food.

A better and more economical method of serving to patients is to serve the trays directly from the fireless cooker food car instead of setting the trays in the ward diet kitchen. In this method the trays are set with the empty dishes, and sometimes with such dishes as are to be served cold, and taken to the rooms or to the patients' bedsides. The car is then run from room to room or through the ward by an orderly or maid, accompanied by a nurse, and the dishes on the trays are filled with the hot food directly from the car. The food is thus served more quickly, as it is not handled so many times, and it is in a much better condition than it usually is after it has been reheated in a steam table, and perhaps left standing while a large number of trays are being prepared and carried, one or two at a time, from the serving room to the patients. The method has the additional advantage of giving the patient some choice in the matter of his menu. This privilege is usually pleasing to the patient and is also economical of food. The chief objection to such a system is that it is difficult to have hot dishes, as the trays containing the needed dishes must be distributed some time ahead of the arrival of the car. But as the dishes, though not hot, need not be particularly cold, the objection need not be a serious one and will be overbalanced by the advantages. With less work, and with great improvement in the service, and considerable saving of food, meals can be served in this way in about half the time it usually takes, when the trays are prepared in the ward diet kitchen. "Special" trays, that is, trays for patients on special diet, will be more safely prepared in the ward diet kitchen and taken to the patient from there, in order to avoid mistakes.



A hospital diet kitchen steam table with overhead warming oven. The base is made of angle iron, black polished, the shelf and skirting are black polished iron and the frame is nickel plated. It has a copper meat pan, with nickel plated revolving top, four white china pots, with removable copper covers. The warming closet and sliding doors are of black polished iron with nickel plated trimmings.

A convenient and practical division of the work of preparing and serving the food, between the various kitchens, is as follows: In the general kitchen, all food for nurses, interns, and employees, except pastry, desserts and salads. For the patients, all meats, except such steaks or chops as are ordered "special." All vegetables for those on general diet, cereals, and coffee.

In the pastry bakery, all pastry, rolls, desserts (including ice cream and ices), and salads.

In the special diet kitchen, special orders, those diets made from special food formulae, or in connection with which particular food problems are to be solved. All "between meal" beverages. Special feedings for infants, unless the pediatric service is large enough to justify a special room for the purpose.

In the ward diet kitchen, eggs, toast, small steaks and chops, tea and cocoa.

Dish Washing An Unsolved Problem

The washing of the dishes used by patients may be classed as one of the unsolved hospital problems. It is usually done in the ward diet kitchen, but the noise is very objectionable to the patients, and it is difficult not to make any noise. To meet this objection it has frequently been suggested that a central dish washing room be established and equipped with the necessary dish washing machine, and that all dishes from the various parts of the hospital be sent there after each meal, washed, and returned to the ward diet kitchens. Except in a very small hospital, caring for but one class of patients, the writer does not believe such a system either desirable or practical. While the noise on the wards will be reduced somewhat, it will not be entirely eliminated, as the dishes will need to be handled both in preparing them to be sent to the dish washing scullery, and in unloading them and putting them on the shelves when returned, and such saving of help as may result will be largely covered by the extra expense caused by the increased breakage resulting from the extra amount of handling of the dishes.

It will also be borne in mind that in most hospitals it is found desirable to provide different qualities of china for various classes of patients. Thus, private patients occupying expensive private rooms will expect more delicate china than that generally used for the free patients in the wards. If the dishes are all washed together in a common scullery, much confusion must inevitably result in connection with their return to their proper places. Special care in sterilization will also be needed with the dishes used by certain patients, and this is likely to be more safely done where they are handled in smaller quantities and with closer supervision.

For this reason, it seems best to equip each ward or division of the hospital with its own dishes, selected to suit the needs of the class of patients to be cared for there, and to have them washed in the ward diet kitchen of each department, as is the usual custom. Much can be done to eliminate or minimize the noise resulting from the dish washing if care is taken, and if the ward diet kitchen is planned so that its doors do not open directly into a corridor adjacent to patients' rooms. The plan shown on page 408 is intended to illustrate how this can be done.

A common error in building hospitals is to plan too small a ward diet kitchen. The space should be ample to care for the equipment, to provide for the reception and unloading of the food car, and to enable four or five persons to work comfortably without congestion or confusion. For serving the food to twenty-five or thirty patients a minimum of three hundred and twenty square feet of floor space will be needed. The following equipment will be needed in a ward diet kitchen of this size:

1 Refrigerator with separate compartment for milk, cream and butter.
1 Dish sterilizer.
1 Clean dish counter.
1 Shallow sink.
1 Work table, steel, or steel top.
1 Toaster (electric).
1 Hot plate, gas or electric.
1 Egg whip.
1 1-qt. crock for salt.
1 10-lb. can for sugar.
1 Carving knife.
1 Roast beef slicer.
1 Meat fork.
1 Garbage can (25 gals.).
2 Large spoons (12 in.).
1 Cork screw.
1 Heavy dishpan.
2 Doz. dish towels.
1 Pail, enameled, 2 gals.
1 Butter tub.
1 Soiled dish counter.
2 Dishwashing sinks (deep), or small dishwashing machine.
1 Cupboard for dishes and supplies.
1 Dish warmer.
1 Tray rack, on wheels.
1 Egg boiler, small, automatic.
1 Double boiler (1 qt.).
1 Steel fry pan (10 inches).
1 Pepper shaker.
1 Butcher's knife.
1 Carving fork.
1 Gravy ladle.
1 Can opener.
1 Lemon squeezer.
1 Water pitcher, enameled (4 qt.).
1 Rack for towels (paper or linen).
1 Measuring cup.
2 Saucepans.
1 Rack for drying dish towels.
1 Ice pick.
30 Trays, aluminum or white enameled.

The list of dishes, and glass and silverware needed will be given in another article in which such ware will be discussed.

GOVERNMENT UNDERTAKES BIG HOSPITAL PROGRAM

The bill providing $18,600,000 for government hospitals was passed by Congress. The bill was the result of urgent requests from the Public Health Service and the American Legion, for adequate facilities for ex-service men. The immediate expenditure of $6,100,000 for the improvement of hospitals now existing and $12,500,000 for the construction of new hospitals was approved. The original plan of having five large hospitals throughout the country has been set aside, and the arrangements have been placed in the hands of the President and the Secretary of the Treasury to place the new hospitals as may be required. This is the largest hospital program ever undertaken by the government.

HOLD COURSE AT TUSKEGEE INSTITUTE, ALABAMA

A postgraduate course in medicine and surgery is being given at the John A. Andrew Memorial Hospital, Tuskegee Institute, Alabama, beginning Monday, April 4, 1921, and continuing for four weeks. The course has received endorsements from any of the best men of the profession. The instructors will be leading men of both the white and colored races from different sections of the country. In consideration of the great difficulty in getting postgraduate work in the schools and hospitals, it would seem that this course should be well attended and prove a great success.

MAKING THE MOST OF THE HOSPITAL ROOF

By CORNELIUS S. LODER, of Cornelius S. Loder and Associates, Hospital Consultants, New York

THE uses of the roofs in the Orient are worthy of serious consideration by hospital builders in the Occident. Using the roof for curative and recreative purposes will benefit the patient and increase hospital revenue. Each of these is of practical importance, for a larger revenue naturally results in better service to the patients.

Until recently, most hospitals considered their cellar space for furnace and storage purposes only. At the present time, through rearrangement, these basements are productive sections of hospitals. So the roofs, which are now regarded by many as merely shelters against the weather, should be put to productive, practical use.

The roof of the Waterbury Hospital, Waterbury, Conn., quite fully illustrates the possibilities of hospital roof service. Here is a large area entirely unused except for slight recreational purposes. The elevator and lavatories are to be found in the enclosed space, and there is a covered space for protection from storms. The larger roof could just as well be used for the enjoyment of the patients, and as a productive part of the hospital.

To some, this idea of putting the roof to some use may seem radical. Many conservative hospital executives are rather averse to introducing unprecedented and unorthodox methods. In such hospitals the authorities later find that their field of service has been seriously limited by this lack of foresight. The progressive institutional executives, as well as the modern hospital architects, who are seeking the best plans for their clients, will give this matter earnest consideration. Some may think it will be very expensive. But after the initial expense, the cost of maintenance will not prove a burden, as special appliances will be prepared to prolong the life of the roofing equipment, and the cost of operating may be less than that of the ordinary patients' floor. This is true because there are no side walls and ceilings. The daylight saves the cost of artificial lighting, the absence of windows lessens the task of cleaning, while the care of the roof necessitates only cleaning of a general character.

There are many purposes for which the roof could be used almost continuously. Patients may be assigned to the roof just as to a private room or ward, space being allotted to them and fees charged for all the privileges. Nurses and attendants would be assigned for day and night roof duty. Beds should be placed on a properly prepared roof for assignment to those patients whose recovery can be hastened by supervised fresh air treatment. Tuberculosis, pneumonia, influenza, respiratory and cardiac disorders, anemias, acute infections, all cases of orthopedic treatment, feeding cases, indeed there are few cases in which there are not indisputable arguments in favor of this treatment. These statements have been fully confirmed through messages received from the most eminent hospital managers in the United States. Dr. A. R. Hatcher, of Kansas, for example, says, "There is no limit to the variety of cases that are benefited by fresh air." In our correspondence with Dr. C. H. Mayo, he says: "We are now building a hospital in which arrangements are being made for roof open air treatment, and there are also two other hospitals here which are using it to some extent." Dr. Mayo further strongly advocates open air treatment for patients, and calls

This photograph from the Mercy Hospital, Pittsburgh, Pa., shows a development for roof garden purposes, with the recreational facilities as the main object. The elevator, dumb waiter and lavatories are probably in the small covered space. Additional space could easily have been added as a place where patients could be placed for treatment and examination.

attention to this service as it has developed on the continent of Europe and is being applied in Colorado.

The growing demand for outdoor treatment

This photograph from the hospital of the Ruptured and Crippled Children of New York City, shows a roof actually in service, and happily meeting the requirements of the institution. The superintendent expresses himself as more than pleased with the results.

must be met. Only in a few places are the climatic conditions unfavorable to outdoor treatment, and even there for only a portion of the year; as, for example, Texas, where the country is visited with sand storms; some of our southern states, where there is intense heat; and the northern Erie states and Canada, where there is severe winter cold. These conditions are only temporary, however.

On the roof, patients are protected from outside noises, they are not annoyed with slamming doors, with loud talking, with tramping of feet, and many other irritating experiences are lessened, thus bringing comfort and countless benefits from this outdoor treatment. In cities the roof offers the patient the opportunity of receiving fresh air treatment away from the noise and dirt of the street, in rural districts the use of the roof is preferable to the use of the hospital grounds because of its protection from storms, and because it keeps the patients more within the protection and control of the hospital. For this reason, many nurses will prefer roof assignment.

If a hospital is so unfortunately located as to be in the path of unwholesome soft coal smoke clouds from factories or railroads, possibly its first duty to itself as an institution, as well as to the patronage which it craves, is to seek relocation. Another step might be an intelligently devised and executed plan of publicity to arouse public opinion to demand the abatement of this smoke nuisance, as there are, of course, appliances which consume smoke.

In some portions of the country objections might be raised because of flies, mosquitoes, or other insects which may prove troublesome to the patients at certain seasons of the year. Protection may easily be effected through the use of bed screens or of netting covering the entire roof.

Cripples will find in the roof garden a comfortable and serviceable lounging room, convalescents will satisfy their desire for being out of doors, and children will derive pleasure and delight in the open air play space. A part of the roof may be assigned to the occupational department, commendably combining work and pleasure.

When the roof is not being occupied by patients it may be used for various hospital functions. Meetings of women's auxiliaries and hospital committees may be made less formal and more enjoyable by being held there; or it may be con-

verted into an attractive study or recreation place for nurses.

As an ordinary roof is built merely as a protection against the weather, it can be easily seen that for this other service the entire structure must be stronger. A type of construction will be necessary which will withstand traffic of wheel chairs, of movable beds, of the walking of patients and attendants, of the romping of playful children. The sheet metal roofing, sometimes used, needs wooden runways, which deteriorate rapidly and do not give complete satisfaction because they are hard to walk upon, and hold dirt and moisture. Difficulties are involved in the use of gravel. Most architects seem to prefer strong quarry tile, set in pitch or other mastic composition, upon a heavy felt roof. In these matters heat and reflection also must be considered.

The third floor outdoor ward of Peter Bent Brigham Hospital, Boston.

An interesting feature is that outside of the stronger framing construction which might be needed, the cost of these roofs will not be an appreciable item of increase over that which the permanent hospital building requires. Experience shows that metal roofs not only have a larger initial cost but that the maintenance, repairs, and replacements make these roofings undesirable.

The tile roof is sometimes recommended. The cost of this will be about three to four times that of the properly built concrete roof on the mastic foundation. The latter seems in every way a desirable one for all hospitals, most readily meeting the requirements of hospital roof service, especially as there are processes for waterproofing concrete structure.

These uses of the roof will necessitate specially prepared equipment and furnishings to meet its peculiar demands; such as elevator, dumbwaiter, laundry chute, patient's call system, lighting service, diet kitchen, lavatories, and a closed space for protection against storm, with an office for the roof nurse. Other equipment especially adapted to outdoor uses will be necessary, such as heavy blankets for the protection from the cold, rubber coverings to ward off storms, sun umbrellas as a shade from heat and light, field glasses and a small telescope, with other desirable appliances for the comfort and pleasure of the patients. The installation of proper equipment for the roof makes possible its use in all kinds of weather, if this factor in the particular section of the country in which the hospital is located is studied.

This shows how Peter Bent Brigham Hospital of Boston uses open air treatment on this second floor terrace.

This practical use of hospital roofs offers to manufacturers an opportunity for expanding their business by constructing and offering to the hospitals specific supplies prepared and adapted to this purpose. Manufacturers should make a study of this problem and

produce a serviceable output for such use. Architects and builders should give particular attention to this matter because it is reasonable to expect that before long every up-to-date hospital will put the roof to a practical use. It is advisable that they have available definite plans on hospital roof construction to submit to building committees.

A study of this situation will show numerous arguments in favor of this adaptation of hospital roofs, and every objection will be overcome. From every angle the roof offers to the hospital authorities a marked opportunity for a happy combination of care for its patients, of recreation and rest from fatigue for nurses and for attendants, and of increased revenue for the institution.

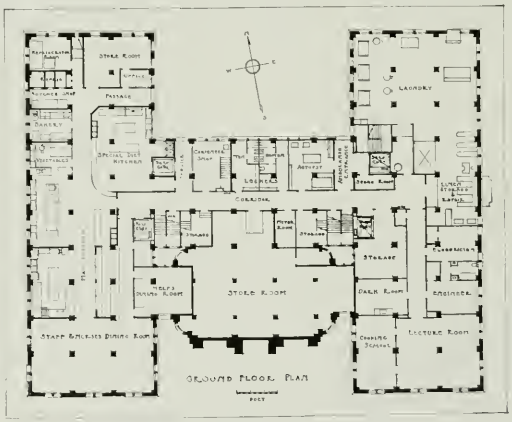
BUILDING ORDINANCES IN RELATION TO HOSPITAL CONSTRUCTION

By DAVID HADDEN, M.D., Oakland, Cal.

TO ANYONE occupied in the planning and construction of a modern hospital building, the building ordinances of the community offer a most interesting and perplexing study. It appears that the average building ordinance of the western part of the United States is copied from that of Chicago or some large city of the East. As a rule, roof warmers and other gross requirements based on weather variations are omitted, but the minor features that weather conditions should modify are overlooked. In fact the requirements for hospital construction show, as a rule, an absolute lack of knowledge of hospital construction growth.

A city usually begins by restricting the districts in which a hospital may be built. The more populous a district is, especially where such population is crowded into apartments and hotels, the inhabitants of which are those most in need of hospital accommodations, the more likely is such a district to be placed outside the hospital zones. It is evident that to the average individual a hospital conveys the idea of the old almshouse where the infirm and indigent are always in evidence. In fact, the rather questionable tendency of some more modern institutions to have the occupants in view on lawns or porches seems to be to develop the tendency of considering a hospital a detriment to the neighborhood. There is no more reason why a hospital, which as a modern development, is a hotel for the sick, should in any great degree detract from the value of that district as a residence area, any more than a modern hotel. But so general is the impression of the hospital as a detriment that not only is the district restricted but the building is required to be placed at a considerable distance from the property lines.

One of our very large and very thickly settled cities requires a hospital building to be placed not less than one hundred feet from its property lines unless the adjoining property is a business block wholly. This city also requires that no "infectious or contagious" diseases shall be cared for in any hospital within its bounds. It also permits any property owner within one hundred feet of any hospital already established to put the hospital out of business; and, as the matter stands at present, each hospital in the town is being conducted as a nuisance, and subject to a fine for each day so conducted. These same cities permit undertaking establishments in selected business or semi-business districts and in many cases in residence areas, without any limitation as to property lines. Yet any attempt to construct a hospital in these districts brings a storm of protest.



Ground floor plan of the general hospital building of the Oakland Hospital Corporation.

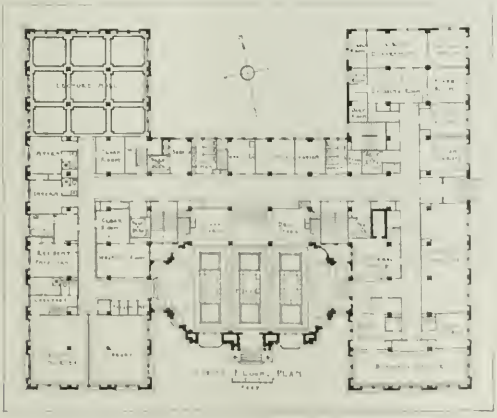
The city of Oakland, Cal., has a building ordinance framed and adopted in 1918. In many respects it is a good ordinance, not only from the

general building point of view, but also as regards hospital requirements. According to its provisions, future hospitals must be Class A or B unless they are only one story, in which case a frame building is permissible. No modern hospital should be less than Class B construction. We store our furniture and valuables in fireproof buildings and have done so for years, but our sick still remain housed in most cases in fire hazard buildings. Any requirement that will lessen the fire risk for the sick is a step forward.

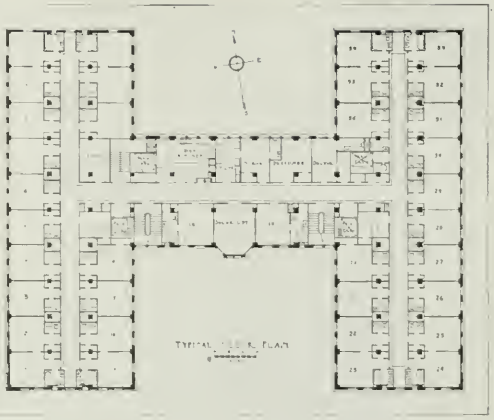
Requirements Conflicting with Feasibility

To add to the necessary fire protection, we are required to provide two stairways not less than four feet wide and with fireproofed enclosure and continuous run, in each building over two stories. If the floor area is over 10,000 square feet, additional stairs must be built not less than three feet wide. If the building is over two stories, an elevator must be provided, and the size of this elevator is specified. The elevators must open off an independent hallway and where this hallway enters the main hall, fireproof doors are required. This is also a necessary condition with stairway exits.

There may be some reason in a building not of fireproof construction for attempting to confine a fire to one floor; but why in a fireproof building obstruct all exits with heavy swinging metal doors? The enormous daily inconvenience to the coming and going of patients and ward carriages is evidently not considered. The closing of stairways is not altogether objectionable, but the recessing of elevators and the swinging doors is certainly of no little inconvenience and surely no value for fire protection, since elevator shafts and stairways are proof against fire. Suppose an earthquake occurred, of sufficient severity to jamb such doors, what would be the result?



First floor plan of the general hospital building of the Oakland Hospital Corporation.



Typical floor plan of the general hospital building of the Oakland Hospital Corporation.

In the new building of the Oakland Hospital Corporation the third stairway is of no material advantage and occupies space which could be used for other purposes. Our elevators are four in number, our stairways are wide, and each wing has its fire escape placed in the rear, though our ordinance requires them on the building front. Since our floor area is slightly over 10,000 square feet, we are required to have the additional exit.

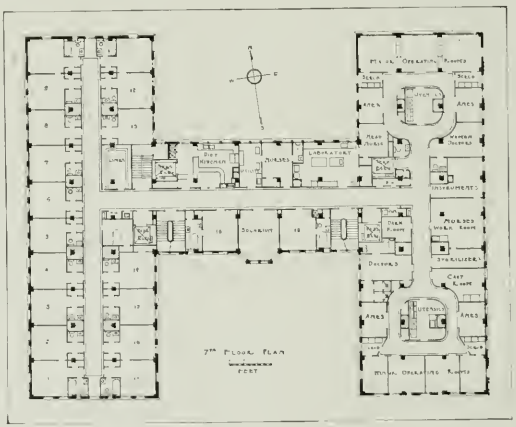
There are some requirements which, to say the least, make one question the motive and ideas of the originator. For instance, it is against the law to provide a room for the storage and repair of mattresses or furniture. It is required that a system for filtered sterile water be maintained; that all "doctors' and nurses' scrub sinks in operating rooms, surgical dressing rooms, or in rooms opening directly into operating rooms or surgical dressing rooms, shall have all water piped from the storage tanks of such sterilizing device." Would that sterile water assured asepsis and that the systems specified assured a sterile water! We might as wisely insist that a knife be supplied the surgeon.

Finally, in contradistinction to our neighbor city, which permits no "contagious or infectious" cases, we are required to provide "at least two complete suites of at least two rooms each for patients and nurse for treatment of patients, affected with 'communicable diseases.' Such suites shall be in a separate building, or, if in the hospital building proper, shall be completely isolated from other parts of the same and shall have entrances from the exterior of the building only." No provision is made for

feeding the occupants of these rooms, and the fact that the hospital may be strictly a surgical or maternity unit is conveniently overlooked. Of course its drafters may say that we must be prepared to care for cases developing in our institution, but such foresight should also have devised a system of catering to these unfortunate ones.

The window space and ventilating requirements are of interest. Our windows must be "15 per cent of the floor area, and one-half of such window shall be openable." It is also required that "the top sash shall be as near the ceiling as practicable, and the top sash shall be hinged at the bottom to swing in for ventilation and shall have guards at the sides of such hinged sash, so as to form a hopper deflecting the air to the ceiling." How would such a provision strike the man who is an advocate and designer of the hundred per cent opening, or the ventilating engineer who advocates closed windows for efficient suction? We are required, also, to put "mechanical exhaust ventilation in all toilets, kitchens, pantries, and utility rooms."

What will the ordinance framers say of the hospital superintendent who said "transoms are not needed for ventilation if the windows are properly located. In many cases they are seldom or never used; they represent an investment expense; they collect dust and dirt and require labor for cleaning; and they are a useless appendage of a modern building."



Seventh floor plan of the general hospital building of the Oakland Hospital Corporation.

The matter of window screening has received absolutely no consideration in this modern ordinance, probably because we must provide a "refuse destroyer," and a "glazed clothes chute."

As the new building of the Oakland Hospital Corporation will be the first hospital to be built under this ordinance of 1918, it is fortunate that Oakland has at the present time a government whose individuals are eager to have the city develop along the most modern lines, so that undoubtedly provisions of the ordinance which conflict with the latest ideas in hospital construction will be modified. The council recently rejected an ordinance offered for passage which would prevent the establishment of a hospital within two hundred feet of a public park. The framers of the bill gave as their reasons that a "hospital was a detriment to the public health and safety." Still more recently another bill, that required a distance of seventy-five feet between the building and the property lines, was rejected. These rejections leave as law our present requirement of twenty feet as demanded in the ordinance of 1918.

The building under development for the Oakland Hospital Corporation has been planned with the idea of providing a modern hotel service for the sick. It has been our desire to create the impression of a hotel rather than a hospital, and for this purpose the main floor is developed along the lines of a hotel lobby. The flower stand, drug store, and notion counters will emphasize this hotel aspect, and a new venture in the shape of an optical department, it is hoped, will encourage our oculists to separate themselves from the prescribing optician.

In the equipment of our operating room service we hope, by giving them the conditions suitable, to encourage operating dentists to do their major dentistry under the safety of proper anesthesia and asepsis.

The ideal striven for in developing our plans is the saving of time and strength for the physician, nurse, and patient, with the greatest comfort for the patient. We have eliminated all wards, for we feel sure that the private room is the only way to procure for the patient the ideal conditions for return to health. Is it reasonable to suppose that a patient who in his own home is used to, and demands privacy, will do better when subjected to the unpleasant features of a ward? Unless the patients are under staff care, the opportunity offered to discuss and compare physicians is great, usually to the detriment of one or more of the profession.

Though our plans are practically completed, we will still value whatever criticisms will aid us to greater efficiency and service.

The Hospital Library and Service Bureau of the American Hospital Association announces that it will have a special exhibit of floor plans, clinical records and interesting material at the Catholic Hospital Association, to be held at St. Paul, Minn., June 21-24, inclusive.

FACTS YOU SHOULD KNOW ABOUT ABSORBENT GAUZE AND COTTON*

IT IS a curious fact that in these days when the hospital executive knows just about all there is to know concerning his equipment, and tries to have a personnel which is up to the minute in efficiency, little is known about the absorbent gauze and cotton which is used so continuously, and upon which so much depends. Up to this time small attention has been given to this subject, and this article is written with the hope of throwing some light on it and helping the ordinary hospital executive to recognize just what kind of products will best serve his needs.

This is the first stage in the cotton process, in the southern field. The pickers remove the inner contents of the boll, and the cotton is then transported to the gin where the fibers are pulled from the seed.

It is rather astonishing that few if any buyers for hospitals put the gauze or cotton which they purchase to any actual test. The salesman calls and usually gives his regular line of "dope"; and what more natural than that he should think his particular brand of products the best on the market? If the salesman does not call, perhaps the supplies are obtained through some local store, or a jobber. Samples may be considered, and even compared, but as far as actually proving the worth of one over the other, do you do it?

For instance, do you test this point before buying? An important index of the thoroughness of the bleaching of cotton, on which the absorbency as well as the whiteness depends, is the ash or residue of mineral matter which remains after the organic matter has been removed by burning. Good raw cotton has an ash of from .9 to 1.2 per cent, and good bleached cotton should not have more than .1 or 1 per cent.

This section of the carding room of the Red Cross Cotton Mills gives a good idea of how the cotton ropes look as they come from the machines.

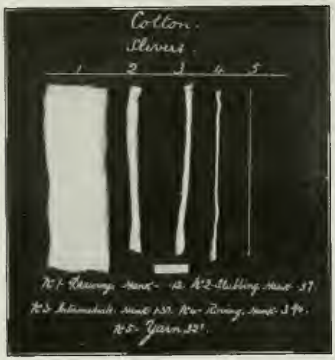
Price is a great factor in the buying of hospital supplies. Where appropriations are limited, and commodities continue to rise in price, it is a very necessary factor. The difference of a quarter of a cent per yard or pound certainly counts up on a product where such large amounts are used. However, all things considered, price and quality should go hand in hand.

Since the weight of the yarn is a factor of importance, because it shows just how much actual fiber goes into a pound, the following table is given, showing the amounts to the pound for meshes which are more or less familiar.

*For assistance in the presentation of this article acknowledgment is made to the Lewis Manufacturing Company, Johnson and Johnson, The Hygienic Fiber Company, Hampton Mills, and the Kinston Cotton Mills.

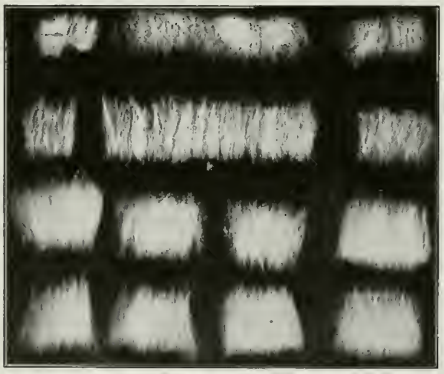
	Bleached gauze	Unbleached gauze
Count...22 by 12	25 yds. to a lb.	23 yds. to a lb.
Count...20 by 16	23 yds. to a lb.	21 yds. to a lb.
Count...44 by 40	9½ yds. to a lb.	8 yds. to a lb.
Count...60 by 48	10½ yds. to a lb.	9½ yds. to a lb.

("Count" is the technical term for the mesh of gauze—giving the number of threads to the square inch. Thus in the coarsest grade given, 20 by 12, there are twenty threads in the warp, and twelve in the woof.)



Illustrating the progress of loose cotton fiber towards the thread in weaving gauze. At the left the cotton is shown as it comes from the carding and combing process, a loosely finished rope or "sliver." By repeated stretching and twisting this "sliver" is reduced to a thread, as shown at the right.

To give some idea of the difference in counts, the twenty-two by twelve is the coarse mesh so often used for dressings, and the forty-four by forty the fine mesh so often used for bandages, the compare the difference in weight. There is



This is cotton fiber as the expert examiner sees it. The two upper rows represent cotton rejected on account of length and character of staple. Certain necessary qualities in cotton fiber are: length of fiber, smallness or fineness in diameter, evenness, elasticity, strength, color, hollowness or tube-like construction, natural twist, and corrugated edges.

also a difference in the number of yards to a pound in the bleached and unbleached gauze, the bleached has been treated to a process which removes the wax, fats, color, woody material, and mineral matter from the fiber, and makes it soft in texture—hence a pound of this latter has more yardage. Isn't is a simple thing to know, but a fact which few of us take into account in buying supplies?

An analysis of raw cotton shows that it is made up of approximately:

Water	7.00 per cent
Ash	1.20 per cent
Fat and wax	5.00 per cent
Coloring matter	.50 per cent
Woody matter	.75 per cent
Cellulose	86.55 per cent

By bleaching, this is reduced approximately to:

Cellulose	92.90 per cent
Ash	.10 per cent
Water	7.00 per cent

Have you ever been through a cotton mill and actually seen the various processes to which cotton is subjected in order to produce absorbent gauze? Have you ever watched the cotton being changed from a dirty, linty substance to a clean

The cotton is examined by an expert hunting for defects among the fibers.

white cloth? Have you ever seen anything more on the production of cotton than a picture of Eli Whitney and his first cotton gin?

Let us begin with the product in the field, and make a hasty but enlightening review of the production of cotton and gauze.

Cotton is raised in the field in much the same manner as is corn. The seeds are planted in rows, and as soon as the plants have reached a moderate height the weaklings are pulled up by the roots in order that the remaining plants may get all the sustenance from the soil. There is no set time for gathering a cotton crop. Each field is gone over frequently and those of the bolls that have ripened are plucked from their stalks whenever found. This goes on from two months after the time of planting until frost. When fully dried, the bolls are gathered up and hauled away. They

are then ready for the first of the numerous operations that are necessary in order that they may be converted into cotton and surgical gauze.

Specifically, the task is to separate the fibers from the seed. Actually, the boll is picked to pieces, the mass of cotton being rent to shreds by a big, powerful machine—the cotton gin.

The ginned fiber must be examined on its arrival at the factory in order that its length, color, fineness, etc., and the cleanness of ginning may be determined. Several bales are opened at one time, the contents of the first bale being spread out evenly on the floor of a large room, and each of the others added in turn, in layers. By this process each lot mixes with all of the other lots or bales, thereby producing a mass that is more or less uniform throughout.

The cotton is now ready to put through the first of the various machines which are required

There are four different classes of machines through which the thread must pass in the spinning of yarn for gauze. In every stage the twisting is also going on. In this manner a rough rope an inch in diameter is transformed into a tightly spun fine thread.

to clean it and straighten out the fibers. At this stage of the manufacturing process there are many knots and tangles caused by the pulling of teeth of the gin, and often bits of pods, leaves, and other foreign matter, all of which need attention. Depending upon the fineness of the yarn to be produced, two, three, or even four machines of the "picker" type are used. This is an elaborate process, by which the fibers are made cleaner, and more closely knit together. The resulting lap is now ready for carding, which is really the first step in the process of putting the fibers parallel and making them lie straight so that when the twisting begins it can be smoothly carried on without interruption by the forming of lumps, knots, etc.

The end of the lap is carried forward until it enters a large cylinder, the face of which is virtually a fine steel brush. This draws forward some of the fibers while others are held back by a pressure roller revolving at a slower speed than the cylinder.

Spinning yarn for gauze is the reducing by gradual stages of the sliver or rope of fiber, turned out by the carding machines. This reduction is accomplished by stretching out, or attenuating, while at the same time the rope is made finer and stronger by twisting.

When the carding is done properly and thoroughly, all of the fibers are ready for spinning. Since different length fibers can be used for different machines, in order that the material may enter the machine, it is necessary that it be "twisted" so that it be strong enough to hold together. By passing it through a "slubber" the twist is accomplished. Succeeding processes stretch the slubber from half a hank to twelve hanks. The spinning machine, like all of the others, is complicated and ingenious. It takes the product from a frame, draws it out into longer and finer strands and twists it into a compact yarn.

When the housewife uses her sewing machine, she has to thread it first. So, also, in weaving.

Weaving gauze is an interlacing of threads, generally at right angles, to form a texture or cloth.

This is the way the seed looks with the fiber attached, before the ginning process has begun.

the loom must be threaded with the warp. For plain weaving there are two sets of needles—one harness goes up as the other goes down, so that the woof will pass over and under each thread, alternately. Since threading the machine is rather a complicated process, the ends of the old warp are knotted to the new one by a small machine which can tie four knots per second.

Now the cotton is in cloth form, but, before it is usable as hospital gauze, there is another series of operations to which it must be subjected.

It must be remembered that as yet the product has not been bleached—it is a dirty yellow, or buff color, called "gray goods." Bleaching is done in two steps, the first of which is the "kier boil." The kier is a large covered kettle. In it from one to five tons, or 50,000 to 200,000 yards of gauze are placed. Water and cleansing agents are added and all are then boiled for a long time under pressure.

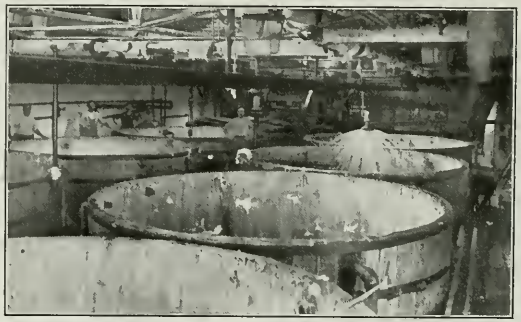
The goods are next given several thorough washings, after which the color in the cloth is destroyed by oxidation with chlorine. After more washings, then neutralization of any remaining alkali or chlorine, and three or four washings, the cotton and gauze is white and absorbent. At this point (leaving the water out of consideration) high grade gauze is more than 99.9 per cent pure cellulose. From this point on, nothing is added to high grade gauze and every precaution is taken to insure its purity and cleanliness.

When the gauze is taken from the kiers, it is piled into containers which are wheeled away to designated places before a machine which will dry it, stretch it into uniform width, and roll it upon "tenter rolls"—all in one operation.

The tenter rolls, which look rather like large spools, serve as a base from which the smaller amounts of the now finished gauze can be unwound. The one hundred yard bolt, package goods, bandages and bandage rolls, and all other gauze supplies are now made directly from the large piece, and as they come from the operator's hands they are neatly packed into a bin which is wheeled to the wrapping room and there given final form. The wrapped product is now ready for the store or packing room.

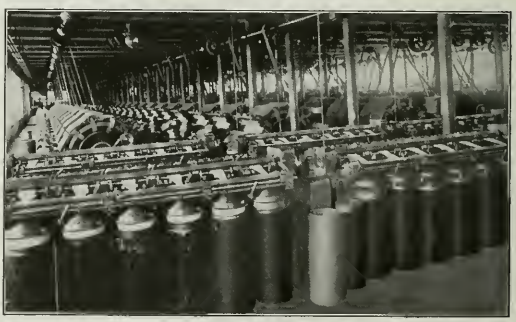
Although the cotton used for the weaving of gauze is subjected to more or less the same sort of operations, there is enough difference for cotton, as such, to merit some description here of the final processes by which this becomes the soft, attractive rolls which we know.

In the case of the cotton after kier boiling and bleaching, it is washed as gauze, and most of the water is then thrown out in a centrifugal dryer. Next the matted cotton is pulled apart and lightened in a "breaker," and then dried by pressing slowly on a moving apron through a hot air chamber.



A hydrolytic laboratory, where cotton and gauze are made absorbent. The gauze after being woven, is sewn into an endless rope that is carried automatically to the hydrolytic laboratory, where, passing over rollers, it is transferred from solution to solution which extract the oils and waxes and leave it absorbent. After the final washing it is carried automatically to a drier without having been touched by human hands.

The cotton is then passed through two more "pickers" or "breakers," which loosen the fiber and deliver it in a "lap" or thickly wadded web in which the fibers run in every direction. Waste cotton is marketed in this form. The finer grades are "carded," giving them uniformity and fluffiness usually associated with absorbent cotton.



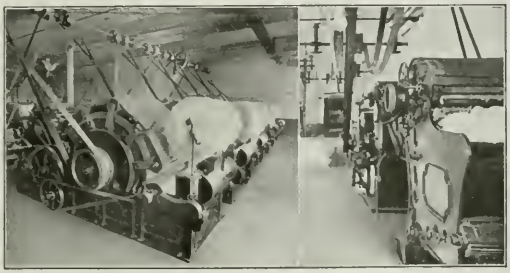
The beating and cleansing of cotton for the manufacture of surgical gauze is very much like that for the production of absorbent cotton, the main difference being that when the sheet emerges from the carding machine if it is intended for gauze, it is coiled into a loose rope called a "sliver." The picture shows a section of the carding room at the Chicopee Mills, Chicopee Falls, Mass.

The carding machine is made of different combined sizes of wire teeth. The cotton, passing over these, is combed and re-combed. The layers of carded material are gathered in a runway and pressed together into a header roll. This is the basic unit from which the rolls we are familiar with are produced.

In all mills where high grade products are sold there is a rigid standard of inspection. The inspectors are always actively "on the job," and they must answer for six necessary qualities—color, weave, absorbency, dimensions, cleanliness and weight. The regulation inspection is thorough, and material is rated "first class," "seconds," and "thirds," according to its merits.

The card room at the Kinston Cotton Mills, Kinston, N. C. Raw cotton on its way to become absorbent, is carded by passing through machines consisting of cylinders covered with teeth which act as combs, laying the individual fibers out straight and parallel.

It is a logical step to proceed from the fabrication of the gauze to the ways by which good gauze may be distinguished from inferior. In order to know what sorts of gauze and cotton will be best for use in your institution, you must realize, first of all, that many of the gauzes on the market today vary widely in certain fundamental ways. The sort of service which you will get from the gauze and cotton you use will depend directly on how well adapted they are to meet your particular needs.



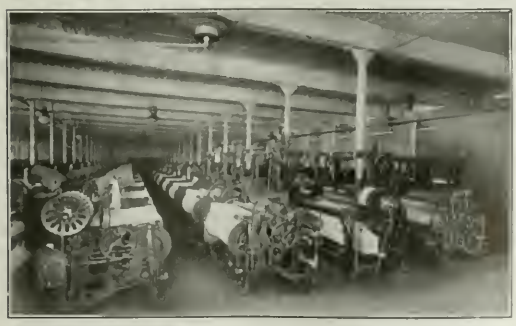
The machines at the right open up the mass of cotton fibers, pick it apart, blowing away the leaves and impurities. The machines at the left gather the fibers together again, form a blanket or sheet of the fibers and wind the blanket into rolls.

When it has been shown repeatedly that there are wide variations in these products, can you be sure which sort will prove the safest and most efficient for your hospital until you have made a careful and intelligent comparison of the different qualities and characteristics in each? One of the first essentials for absorbent gauze and cotton which is to be used in hospitals is that it have quick and active absorbency. Leading surgeons agree that this is of prime importance in surgical work.

There is an interesting test which shows the big absorbency varience in gauze. If you will try it, it will show you some significant facts. Take quarter yard lengths of as many different brands of gauze as you can assemble for inspection. Fold one of the quarter yard lengths into a four inch square, press it lightly between the palms, and drop it in a pan of water. Note by your watch the exact number of seconds it takes this to sink. Remove, then drop in the water a second piece similarly prepared from another sample and note the time it takes that to become completely submerged.

Repeat with as many samples as you have. You will discover a fact to which possibly you have not given much attention before. There is quite a difference in the time necessary for submergence in the case of the different brands, ranging from almost instantaneous absorption in the case of the best grades, to little or no absorption in the poorest grades. You can apply this submergence test, also, to the various brands of absorbent cotton, using about one gram rolled into a compact ball.

Cotton, as it grows, a small handful of fibers, closely matted together and encasing the seeds

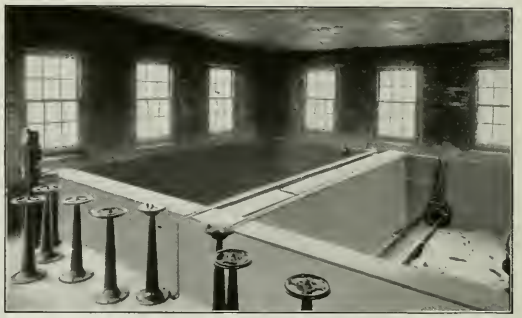


Weaving gauze in one of the weaving rooms at the Red Cross Cotton Mills. This method is slightly different from the old hand process when the weaver had to lift up every thread of the lengthwise set, and pass it under a shuttle containing the transverse thread.

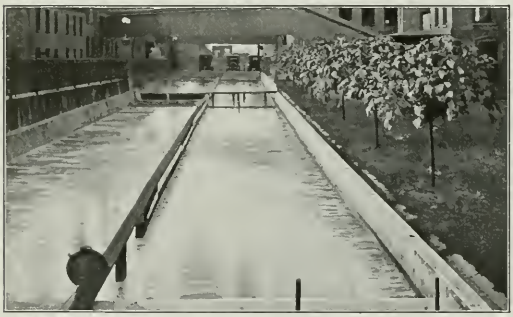
of the plant, is naturally non-absorbent. In order to make it absorbent, it is necessary that all the oil be removed. It must be carefully prepared and bleached to remove all encrusting impurities and to free it from waxes, greasy matters, etc., which serve as water-repellent materials. If great care is not taken to control these processes of cleansing and bleaching, a weakening of the fiber may result. The necessary mechanical and chemical manipulations can be carried out in such a way, however, that tensile strength is not impaired.

An easy test for tensile strength is simple washing. Gauze which stands up well under re-washing is the gauze which is economical to buy. It will always hold and do the work which is required.

The second characteristic that gauze, which is to meet most satisfactorily the tests of service, must possess, is softness of finish. All buyers will agree that this is an important point to consider, as there must be no roughness or stiffness. Especially for delicate work, a gauze which is entirely free from troublesome knots, loose threads, and cotton dust is the one to be chosen.



Part of the water filter basin. The water, after precipitation with the coagulent, flows on to the filter bed, thence through layers of sand three or four feet deep. Each sand grain assists in collecting the dirt and bacteria.



Water settling of sedimentation basin. Raw, or impure water, as it flows into this basin, becomes mixed with the coagulents, a gelatinous flocculent precipitant, which settles out carrying with it participles of dirt, etc. The process requires several hours.

The difference in the texture of different gauzes can be noted at once simply by feeling of them, carefully, with the hand. Not all have the same uniformity of weave, and smoothness of finish. These are important things to look for. Hospital buyers and superintendents should be sure that the gauze they buy measures up as high as possible in these tests.

In the third place, the gauze which is ideal for hospital use should have a pure white bleach obtained without the use of an excess of chemicals, and should be delivered to the consumer in a spotless, unwrinkled condition.

Such gauze cannot be delivered, unless it has been manufactured in mills where sunlight and air are admitted freely. Furthermore, it must be wrapped in covers that will exclude all dust and foreign substances, which would be very injurious if they were brought in contact with wounds.

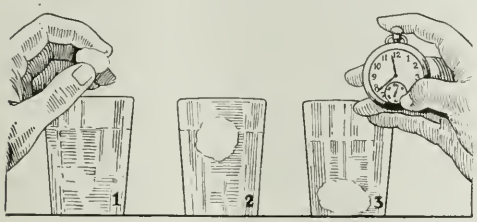
It is necessary, too, that the gauze be folded straight and that it be kept unwrinkled. If this is not true, much time may be wasted in putting it in shape so that it can be used to best advantage after it reaches the hospital.

As with gauze, in the matter of absorbent cotton there are certain characteristics which must be demanded if maximum service is to be realized. In addition to the all important maximum absorbency and capillarity noted above, whiteness, cleanness, length of fiber, weight, and convenient put-up are important. In general, the longer the cotton fiber, the more desirable the cotton, for it holds together better, is finer and softer.

At the beginning of this article some mention

A corner of a bacteriological laboratory. Sterilization processes are controlled from here and check tests made of finished products.

was made about the various "counts" of gauze. Is it generally known that there are more than a dozen meshes in common use at the present time? If there are so many, then there must be some reason for such a variety, and some way of discerning between the different ones. Moreover, if there is such a wide variety from which to choose, wouldn't it be possible to buy different grades, and have the most suitable for each different type of work in the institution?

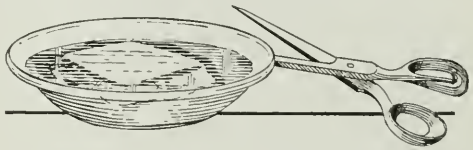


Try this absorbency test on the cotton you are using. Roll a small ball tightly between thumb and forefinger, drop it into a glass of water, and note by the second hand on your watch, how long before it sinks. There is a surprising difference in the time necessary for different brands, ranging from instantaneous submergence in the best grades, to little or no absorption in the poorest grades.

The coarsest meshes, twenty by twelve and twenty by sixteen, are ordinarily bought for making pads, wicks, and dressings of different kinds. Where laundry costs are low, a very considerable saving in gauze bills may be effected by purchasing a heavier count, such as twenty-two by eighteen or twenty-four by twenty. Aside from the fact that these make better dressings, they may be washed and re-washed, and still do their work effectively. Although the initial outlay is greater, the final cost is low, since considerable yardage is saved.

Finer counts are used for making bandages. Forty-four by forty is accepted as a standard grade for this purpose, but others, such as twenty-eight by twenty-four, thirty-two by twenty-eight, and thirty-six by thirty-two, are in daily use. Because in these the threads are more closely woven, the heavier meshes will give bandages with good tensile strength.

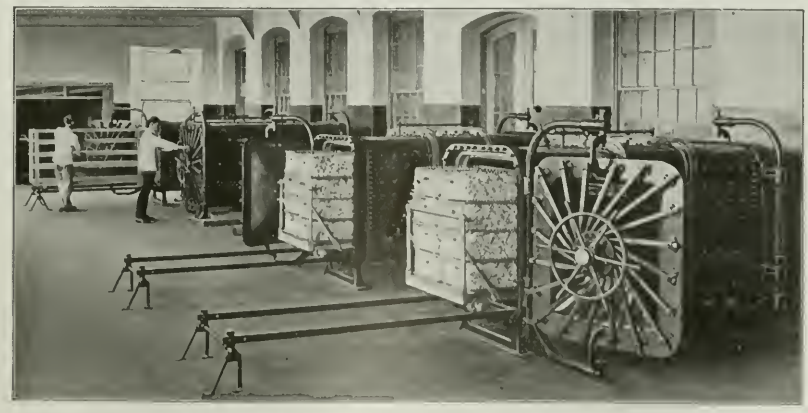
As with gauze, so with cotton, for different purposes, different grades should be used. For delicate work, on the eye, ear, nose, etc., the high grade, long fibered cottons are preferred. This grade, of course, is expensive at the present time, but it is highly absorbent, very clean and pure, and most effective. For ordinary institutional use a medium grade of cotton is required; in heavy drainage cases or cases where large amounts of liquid must be taken up, waste cotton can be used economically. A simple way of telling the difference between grades of cotton is through practically superficial observation.



To test your cotton for soluble coloring matter and impurities, cut a layer, six inches square, carefully place it on the surface of water in a basin. It will sink and the water will rise through the mass of cotton. There should be no coloration or dirt at the moment that the cotton is submerged.

The better cottons are thoroughly bleached, show no specks or lumps, and have a soft and even smoothness of texture. By merely pulling the material apart, one can tell something of the fiber—waste will have little or no "stretching" power, while a high grade material will not pull apart easily; it will tend to cling, for the fibers are longer.

And what are the most important things to



Steam vacuum sterilizers. The sterilization is carried on in a special room, with tile floor and walls, which forms a connecting link between the factories and the packing departments. All goods pass outward through this battery of sterilizers. The capacity of each sterilizer is 12,000 bandages at each operation.

remember when buying gauze and cotton? That they have a pure white bleach, maximum absorbency, and guaranteed cleanliness, with, in the case of gauze, a soft texture and undiminished textile strength. At first these seem to make a rather long list, but in reality these important characteristics are simple. A little practice in watching for new gauze as it comes in, testing it, and the buyer is soon familiar with all these requirements.

Moreover, it is surprising what real satisfaction is to be gained through having an accurate knowledge of the quality of what one is buying, just as you know whether or not the suit which you wear is worth the money you paid for it, and if it is giving you the service which can be expected of it, so with your hospital supplies. "It's the little things which count"—though seemingly minor quantities, they are extremely important. See to it that you are one of those who can distinguish.

THE NEW BUILDING OF THE STANFORD SCHOOL OF NURSING

By GEORGE B. SOMERS, M.D., Physician Superintendent, Stanford School of Nursing, University Hospitals, San Francisco, Cal.

LANE and Stanford University hospitals belong to the medical department of Stanford University. The two buildings are side by side, connecting, and under one management. Lane Hospital is used for teaching purposes and the accommodation of clinic patients, while Stanford University Hospital is used for the care of private patients only. The latter building is new and beautifully equipped. It is provided with solariums, sleeping balconies, Zander rooms, hydrotherapeutic, electrotherapeutic, and x-ray departments. The capacity of the two hospitals is three hundred beds.

The nurses of the training school in connection with these hospitals have been, up to this time, accommodated in eleven private residences situated in the neighborhood. Nine of these residences were situated immediately opposite the hospitals on a block of land which which was purchased by the university trustees for building purposes. The center of this block, consisting of a fifty vara lot (137½ by 137½ feet), will be almost completely covered by the new building. On the adjacent corners the plans of the board of trustees call for the erection, as soon as funds become available, of a woman's hospital on one side, and a children's hospital on the other.

This attractive building is the new home of the Stanford School of Nursing.

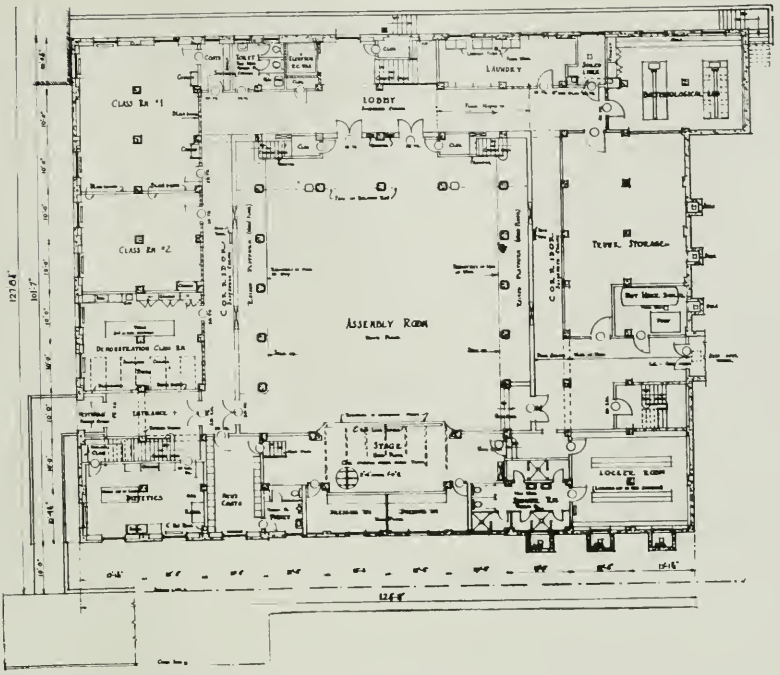
A word or so may be said about the school itself before describing the new home. It has been the aim of the hospital management to place the school on the highest possible standard, inasmuch as it possesses the advantage of being part of a University, and entirely controlled by the medical department thereof. The school is thus in a position to draw on the medical department for teaching facilities, instructors, and opportunities for experience in clinic, out-patient, obstetrical, and social service work.

With these facilities at its command, the school is making a steady effort to develop along lines which will make it attractive to college women, and to those who may be interested in hospital teaching and administration in social service and public health work.

The first step taken to place the school on a high educational basis was to establish in the University curriculum, a three year pre-nursing course which, combined with two years spent at the Stanford School of Nursing, permits college women to obtain the degree of Bachelor of Arts and Graduate in Nursing, at the close of the five years.

The second step was the recognition of the instructing staff of the training school as members of the university faculty. The following have been elected members of the faculty: superintendent of nurses, Miss Elizabeth Hogue, A.B., R.N., with the title of professor of nursing; Miss Maud Muse, R.N., instructor in theory and practice of nursing; and Mrs. Hazel Smith, R.N., instructor in practical nursing.

In planning the new building it was considered that something more than a dormitory was neces-



Ground floor plan of the Stanford School of Nursing.

sary. Accordingly, special effort has been made to provide ample accommodation within the building for instruction, recreation, and a broad social life. The structure provides not only rooms for two hundred nurses, but also class rooms, laboratories, assembly hall, gymnasium, social quarters, and an infirmary. The extent of these provisions may be judged by referring to the accompanying plans and the description given below. As emphasis has been laid on the educational facilities, the building has been called the Stanford "School of Nursing," rather than "nurses' home."

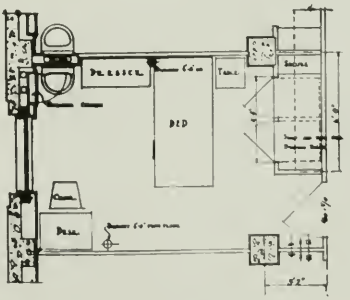
The building is situated directly opposite Lane and Stanford University hospitals, and is connected with them by a large tunnel running beneath the street, by which the nurses may pass back and forth without exposure.

Arrangement of the Ground Floor

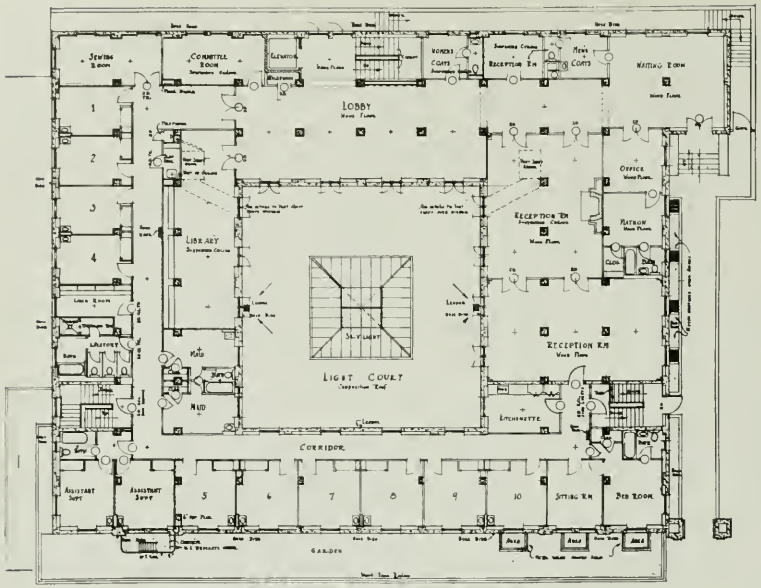
The building is constructed of reënforced concrete and is practically fireproof. It consists of two wings of seven stories, each facing to the south, the north ends of which are connected by the main portion. The space between the wings corresponding to the ground and first floors is occupied by the assembly hall with a skylight over it.

Access to the ground floor is provided by a separate entrance from the street and also by the main tunnel from the hospital. On this floor are situated two large class rooms, a demonstration room, dietetic laboratory, chemical laboratory, and a large assembly hall with stage. This hall is so arranged that it may be used for dances, lectures, and gymnasium purposes. Adjacent to the hall are lockers and showers. Space for trunk storage, and a hand laundry for the personal use of nurses is also provided on this floor.

The social life of the nurses will be largely centered on the first floor. At the entrance is a good sized waiting room with adjacent men's coat room, women's coat room, and small reception



Plan of typical room.



First floor plan of the Stanford School of Nursing.

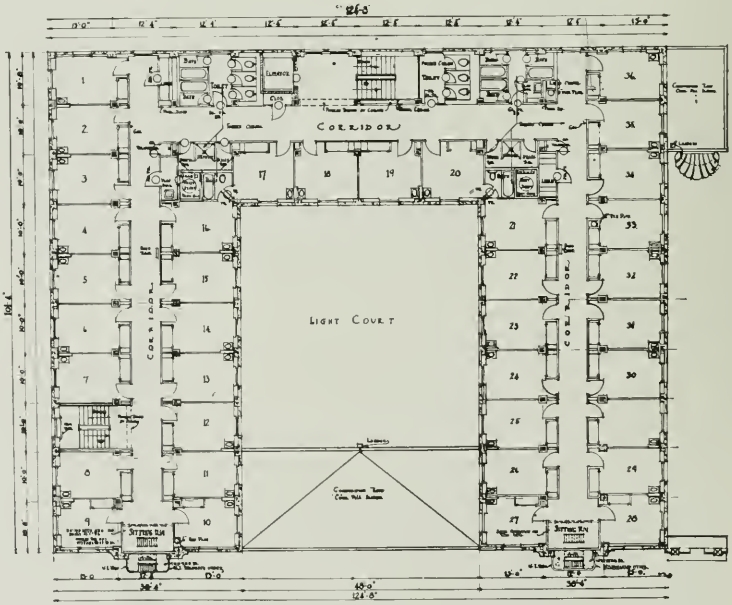
room. The entrance lobby leads then into a large reception room with a fireplace. Adjoining this is a third reception room of large size to be used as a music room. These reception rooms open into one another and have hardwood floors, and are so arranged that small dances may be held here, while the larger dances will be given in the assembly hall.

Passing on from the entrance lobby, the large main lobby leads to the library and also to the committee rooms, sewing rooms, elevator, and stairways. There are also situated on this floor an office, house mother's quarters, a few single rooms, and the suite of the superintendent of nurses.

The second, third, fourth, and fifth floors contain each thirty-six single rooms. There are no double rooms. The toilets, tub and shower baths are situated on the cross corridors at the north side of the building. At the south end of each wing corridor there is a sun room.

Special attention may be called to the nurses' rooms, which will have every possible provision for the comfort and convenience of the occupants. Each will have hot and cold running water, a clothes closet, bed, bedside table, rug, easy chair, study desk, and desk chair. One electric light will be placed between the bed and the dresser, and there will be another one over the desk. The fixture selected provides for locking the lamp so that the outlet may not be used for other electric apparatus.

All corridors and bedroom floors will be covered with linoleum cemented to the concrete

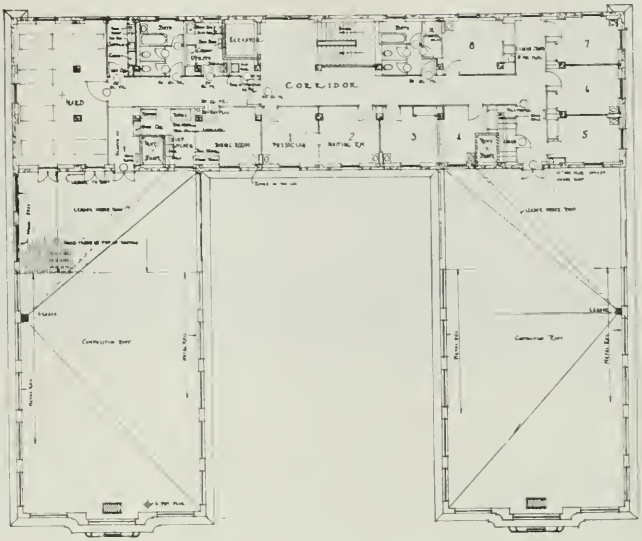


Second floor plan of the Stanford School of Nursing.

beneath. The assembly hall and reception rooms will be covered with hardwood flooring; and baths and toilets will have tiled floors.

Adjacent to the roof garden an extension of the main building will provide a ward of six beds with adjacent utility, supply rooms, and kitchenette. Treatment, waiting, and consulting rooms are also to be situated on this floor for the use of the nurses' medical attendant, and for keeping the morbidity records.

The telephone system within the hospital will save time and energy. A switchboard in the matron's room is connected with the main switchboard of the hospital. The local switchboard is connected with two telephone situated on each floor. When a call for a nurse is received, a buzzer is sounded in the nurse's room. If present, she pushes a reply button and then goes to the nearest booth to answer.



Seventh floor plan of the Stanford School of Nursing.

THE HOSPITAL LAUNDRY AND FABRICS*

By WALTER TRIMBLE, Chicago, Ill.

WHEN an article comes back to the hospital's clean linen room, after being laundered, any hole or rent that may be in the piece will, as a matter of course, be attributed to the laundry department. The fact that even the best of fabrics is bound to wear out at some time or other is forgotten, and it is seldom remembered that sometimes the goods are damaged in the hospital, either by employees or by patients. The laundry may cause some destruction of fabrics, and it cannot avoid wearing out the goods to some extent, but nevertheless it should not be blamed for sins which it does not commit.

A letter that has just come to me shows the manner in which many pieces of valuable goods are ruined in the wards of hospitals. Parts cut from two articles were sent as samples, and each had a round hole in it. To the uninitiated it would appear that each of these round holes had been cut with a sharp instrument. But neither hole was made in that manner.

The first piece was of muslin, and in it was a circular hole, about three and a half inches in diameter, and with it was the circular piece which had been cut out. When this latter piece was fitted into the hole, about one-eighth of an inch space remained all around. The writer of the letter explained that these holes were constantly appearing in goods sent to the hospital's laundry from the wards, and he also stated that the holes had never been found in goods which came from the nurses' home.

This gave me a clew to the cause of the holes, and a chemist later confirmed my opinion. The holes were not the fault of the laundry. Circles were eaten into the fabric in the hospital, and in the following manner: A great many of the antiseptic solutions which are used in a hospital will destroy cotton and linen fiber. Sometimes the bottom of the vessel which contains a solution will become moistened with the liquid, and then it is set down on a piece of goods. If the bottom of the container is concave, as is usually the case with a cup, a glass, or a bottle, this weakens a narrow circular path, and then, when the article goes into the washing machine, the weakened fiber comes out, and a round hole is the result. The damage, in such cases, is done in the hospital, but the laundry gets the blame.

*This is the sixth of a series of articles, by Mr. Trimble, on the hospital laundry. The others have appeared in the November and December, 1920, and the January, February and April, 1921, issues of The Modern Hospital.

STATE HOSPITAL LAUNDRY, NORRISTOWN, PA.
An artistic and unique building, in beautiful surroundings, which makes an ideal laundry home. All of the machinery in this plant is electrically driven, eliminating all belting and overhead shafting.

The other piece was a towel, and the fabric was not eaten through all around, but it was penetrated in five spots. Put a corrosive antiseptic solution on the bottom of a common water glass, pick up a towel, and wipe the moisture from the glass, pressing with your thumb and four fingers, which is the most natural manner, and you will reproduce this condition.

A similar weakening of pieces of fabric often takes place in the kitchen. A heated dish or plate is taken from the warmer and placed on a napkin or tablecloth, and as a result it cooks the fiber with which it comes in contact. It is not an actual and visible "scorch," so the damage is not seen by the one who does it. But when the piece is washed, the cooked fiber comes out, leaving a hole. Or it may be a vessel direct from the stove that does the damage. At any rate, the laundry gets the credit—or, rather, the discredit—for the damage.

Defective and Adulterated Goods

Sometimes one will purchase, in the interest of economy, fabrics which are seemingly offered at a very low price. If one does this, he is very apt to get material which is equally low in quality, if not lower. If I may offer a word of advice on this subject, it is this: Buy from none but reputable houses, keep quality in mind, and shun all so-called bargain offers. Do not make the common mistake of thinking that "the thickest goods will last the longest," for a piece of thick goods may be of short staple fiber, loosely woven, filled with sizing, and full of flaws, and therefore not having nearly the wearing quality of a much thinner piece. There are lots of adulterated fabrics on the market, and some are positively fraudulent, but I will not go into the details of these matters now. To guard against being deceived by such goods, one should buy only from reputable makers or jobbers, selecting brands which are known to be uniformly good.

Other Sources of Destruction

Other injuries than those I have referred to may be done to fabrics in the hospital, before they get to the laundry department. Where the pieces go to the laundry through a chute, there often is needless wear and tear. The sides of the chute may be rough, and thus goods may be ruined by abrasive action; or there may be a splinter, a screw, a nail, a rivet or something else projecting, which will tear the goods.

Where there is not a chute to the laundry department, it is often customary to do up large bundles of goods, with a sheet or tablecloth on the outside, to hold the articles together. Then, as the bundles are too heavy to carry, and as no truck is available, the precious package is dragged across a rough floor. Thus, a big hole is worn in the outside article, and perhaps the dam-

LARGE CONVEYOR DRYROOMS.
View in State Hospital Laundry, at Norristown, Pa. After being starched, various articles are hung on a conveyor chain, and as they pass through the heated chamber they are dried.

age extends to the inside of the bundle, as far as five or six layers of goods.

While the use of a truck may save articles in one way, it may destroy them in another. Very often, employees are allowed to place piles of goods on the floor. Then, a truck comes too near, the sharp wheels pass over a few pieces, cutting a gash in each one. This may happen in the hospital, before the goods go to the laundry department, but the laundry is more than likely to get the blame. The laundry is not always innocent, either, for this frequently happens in the washroom. Sometimes it is shoe heels which damage the goods, instead of truck wheels, and the damage may either be done in the hospital or in the laundry. Even the dainty French heel of a nurse, if applied to a piece of goods which is lying on a hard floor, will make the beginning of a very large hole. Remember, these dainty heels are often made of metal, and if the leather pad is worn off, they have a cutting edge. It is hardly necessary to tell what the hobnailed shoes of the men in the laundry will do to any articles on which they may happen to land.

It is obvious that goods never should be placed on the floor, under any circumstances, either in the hospital or in the laundry. Provide plenty of tables and platforms, and see that all soiled articles are placed on these. Be sure, also, that there are no splinters on these to tear the goods. Provide plenty of trucks and hampers and permit no dragging of bundles.

Another cause of mechanical injury to the goods in the washroom is "strong arm" practice in getting the pieces out of the washing machine. If the pieces have become tangled up, which often happens in the washing process, the "strong arm" washman may pull them out by main strength.

IRONING DEPARTMENT

View of the large, well-ventilated and well-lighted ironing department of the State Hospital Laundry, at Norristown, Pa. On the left are two large flat work ironers, on the right are two more, and at the rear are the smaller ironing machines.

A VERY LARGE WASHROOM.

View of the washroom of the State Hospital Laundry, at Norristown, Pa. Note the large over-driven extractors in the foreground, at the left, each with direct-connected electric drive. Like the ironing department, this has unusually good lighting and ventilation.

instead of first disentangling them so they will come out easily. If a machine is running as it should, the goods will not tangle, a slipping belt being the cause of this trouble.

Still another cause of mechanical injury to goods in the washroom is the improper loading of the extractor, which, as I have explained in a previous article, is a machine to remove the excess moisture by centrifugal force. If the load is not put into the extractor properly, there will be a strain on some pieces, and this may cause some to tear, especially the weaker ones. Here, as in the foregoing case, skill and care are required.

The damage done by over-washing, by which I mean washing too long a time, is from both mechanical and chemical causes, but as this is too long a subject to discuss in this article, I must leave it for a future one. Be sure that your fabrics are washed just long enough, and no longer.

All of the mechanical and chemical sources of damage should be reduced to a minimum, for, as all know, fabrics are still very expensive. This should be kept constantly before the manager of the hospital's laundry department, "lest he forget." But the hospital superintendent also should take particular pains to see that needless damage is not done to goods in the hospital itself. It is well to keep one's eye on the nurses and other employees, to see what damage is being done. Then see that safe and sane methods are used in the laundry.

St. Mary's Hospital, Waterbury, Conn., is planning an addition to cost about $500,000.

The City of Erie, Pa., is having preliminary plans drawn for a municipal hospital, to cost about $125,000.

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STAFF HOSPITALS MENACED IN FOUR STATES: A DANGER AND A DUTY

OF A sudden, the medical administrative policies of non-municipal hospitals have become a political issue in four states. In the legislatures of Missouri, Wisconsin, Illinois, and Michigan, at almost the same moment, as if by preconcerted agreement, bills have been introduced which are designed, either by the withdrawal of direct subventions or by the nullification of existing tax exemptions, to harass not only closed or staff hospitals, but those which, though open to all qualified medical practitioners, prudently draw a line against non-scientific cults whose practices menace the health and safety of the public.

In Missouri, as we go to press, such a measure has actually passed both houses and awaits the action of the governor. It is left for the governor to say whether, at this critical period in the financial history of all charitable institutions, hospitals are to be forced to choose between countenancing the pernicious practices of quacks, and paying the penalty of heavy and unprecedented taxation. If the Governor of Missouri is "from Missouri" in the popular sense, he will veto this vicious measure, for what is demanded by the Missouri legislature is nothing less than the sacrifice of indispensable scientific and ethical standards—standards without which hospitals cannot retain their self-respect or the respect of the communities which they are asked to betray.

The enemies of scientific medicine are everywhere. The note which has thus been sounded in four states, and sounded with special emphasis in Missouri, will be heard elsewhere. It is a signal which will doubtless rouse the hospitals and the more intelligent lay members of the community to successful resistance. The Missouri bill may be vetoed; or it may be approved by the governor and subsequently declared unconstitutional by the courts; or it may obtain, though it does not merit, the approval of both the governor and the courts. The answer of hospital trustees to the demand that they throw the cloak of hospital respectability around eccentric cults, some of which are ludicrous, and all of which are dangerous, should be an emphatic "No!" Hospitals are sacred community trusts, pledged to use the property and the opportunities which they control for the prevention and cure of disease and for the preservation of human life. If legislatures are so reckless, so blind, or so stupid as to deprive hospital trustees of the right, or to relieve them of the duty of choosing hospital staffs with care and discrimination, the wholesale withdrawal of conscientious men from hospital boards will inevitably follow. Furthermore, those who now contribute to the support of free work in charitable hospitals will be justified in refusing to contribute another dollar to any institution which abandons its patients to the mercies of uneducated healers.

Not the least disconcerting part of the onslaught on hospital standards is the fact that in some instances the menacing legislation is supported not only by unreasoning devotees of disreputable dogmas, but by educated medical men who are filled with resentment against hospitals because under the staff system they are deprived of full hospital privileges. To the former, slow but indispensable educational processes are a nuisance; they clamor for the obliteration of all marks by which real medical qualifications can be distinguished. The latter demand only equality of opportunity for all reputable medical men. We have indicated the manner in which the demand of the first named group should be met by hospital boards and by the contributing public. The reply of hospitals to the second group must, however, be couched in different terms. If any real grievance exists, it must be frankly admitted and fairly dealt with.

None will deny the need of a system of medical education; no fairminded man will refuse to concede that medical students, graduate as well as

undergraduate are entitled to be taught by the ablest men that can be obtained. If the development of competent clinical instructors can best be accomplished by conferring special hospital privileges upon a relatively small group, such privileges should be conferred, not as a favor to the group immediately benefited, but in the best interests of the medical profession and of the nation. Herein lies the justification of the closed or staff hospital.

Those who are honored by staff appointments must recognize their obligations and do their duty. The staff of the closed hospital must teach. It must teach undergraduates in hospitals which are attached to medical schools, teach interns in hospitals which are fortunate enough to have interns, teach non-staff physicians everywhere. The closed or staff hospital is bound to maintain a grade of practice above the average, and to use its special opportunities and privileges in the broadest manner consistent with the safety of its patients and the welfare of the community.

The staff hospital must be a research hospital as a matter of course, for it possesses by far the best opportunities for the systematic study of disease. The members of the staff must be chosen for their ability to work at the bedside or in the laboratory, individually and in team formation. The hospital staff must ceaselessly practice self-criticism. It must work in the open, thus unequivocally demonstrating its sincerity of purpose. As a matter of practical necessity, the bulk of the medical profession must be excluded from membership in the staff organization, but no educated medical man may properly be excluded from its benefits.

The hospital staff must be prepared, at all times, to assist the general practitioner in diagnosis and treatment. The general practitioner should be invited to witness the treatment of his patients in its wards and operating rooms. Both clinical and pathological conferences should be thrown open to him. Courses of lectures and demonstrations should be instituted for his benefit. In brief, the staff hospital is charged with the duty of maintaining contact with the general practitioner and of keeping him constantly aware of and interested in its work and progress, and this is perhaps the only way in which the excluded general practitioner can be effectually and permanently separated from his present unholy and damaging alliance with the enemies of scientific medicine.

The staff hospital can best serve the practitioner, not by abandoning its exclusive form of organization, for this is indispensable to the maintenance of proper clinical standards in research, in teaching, and in medical progress generally, but by making its organization function with maximum efficiency. By doing its full duty, the staff hospital may avert a public calamity and a national disgrace.

HOSPITALS TO SHARE IN BUILDING REVIVAL

THE inability to provide adequate hospital facilities due to building conditions arising out of the war, has in many communities caused untold suffering, and not infrequently loss of life. There is increasing evidence, however, that conscientious efforts are being put forth to revive the building industry. Hospitals would of course share in such a revival, and in time the present deplorable situation in the hospital field would be changed.

One very significant piece of evidence is the National Construction Conference which was held in Chicago March 2 and 3, under the auspices of the National Federation of Construction Industries, at which some important resolutions were adopted.

After disclosing the facts that the cost of construction materials remains high when compared with prices before the war and the present average of other commodities, that the labor cost of construction has not been properly adjusted to present conditions, that the present conditions surrounding the financing of building construction must be modified, that the relations between employer and employee should be stabilized in order to secure continuity of operation and maximum production, and that employers in the construction industries have not acted promptly enough in effecting deflation of values, the Conference called for certain definite lines of action. It asked the manufacturers, producers, and distributors of building material to take such further deflations at this time as may be possible, and then to announce selling prices in which the public may have confidence, explaining to the public at the same time the elements of increased costs over which the manufacturer has no control.

It called upon building contractors to create a basis of labor cost on which the building industry may be re-established. To this end, it suggested that wages be readjusted, that irregularity of work, due to jurisdictional questions and sympathetic strikes, be eliminated, that efficiency and production be improved, that waste of effort be eliminated, and that employers readjust their overhead expenses and profits to conform to present conditions.

It called upon financial interests to accept a recession in profits and make liberal provisions for financing building construction.

It urged transportation companies to eliminate inefficiency of operation and reduce expenses in order that they might proceed with necessary construction work and reduce transportation rates on construction material.

It called upon mine owners and operators to improve their method of mining and marketing, eliminate waste and adjust labor rates, in order that the cost of fuel, an important item in construction, may be substantially reduced. It requested the Federal Government, and various states and their subdivisions, to eliminate unnecessary expense and practice the greatest public economy in order to reduce the tax burden. This reduction is necessary before there can be sound prosperity in industries, including the construction industry, which, next to agriculture, is the largest in the country.

And finally, it called upon all organizations and individuals connected with the building industry not to enter into, or make any arrangements that would tend to injure the public or increase the cost of construction unnecessarily.

In order to secure action on the declaration of the Conference, local chambers of commerce and similar community organizations were asked to assist in restoring the construction industry to a sound economic basis. The National Federation of Construction Industries was asked to appoint a central direction committee to act in executive capacity in carrying out the declarations of the Conference, through local conferences and cooperation with national organizations.

While the action of this representative body of construction industries as outlined above is bound in itself to have a salient influence on building activities in this country, including, of course, hospital construction, nevertheless the full success of the movement thus inaugurated will depend very largely on the spirit and earnestness of local effort. All who are interested in hospital construction, either directly or indirectly—contractors, building committee, trustees, and superintendents—should cooperate with the National Federation of Construction Industries as represented by its central direction committee, in furthering the movement for the revival of the construction industry inaugurated at the National Construction Conference.

LEGISLATIVE ACTIVITY ALONE JUSTIFIES STATE ASSOCIATIONS

STATE and provincial hospital associations now exist in thirteen or fourteen states and provinces of the United States and Canada. One of these associations has been in existence for five years; the others for varying periods within this five year limit. Do these associations and what they have thus far accomplished justify a nation-wide organization of state hospital associations?

A critical analysis of the activities and accomplishments of existing associations reveals a number of excellent reasons why every state in the Union and every province of Canada should support active state or provincial hospital associations. It is our purpose here, however, to dwell on but one of these, namely, the efficient mechanism offered by them through which united action may be taken on legislative matters. The present trend toward state supervision of health having for its goal adequate hospital as well as medical service for all, as embodied, for example, in the health center bill introduced in the New York State Legislature last year and reintroduced this year, will involve the enactment of many new laws vitally affecting hospitals. In state associations the hospitals of each state will have an instrument through which they can come to a common understanding on legislative matters and with which they can take not merely the defensive, and oppose pernicious bills that are inimical to the hospital's principal purpose, but the offensive, and not only foster good bills, but actually formulate and introduce bills that are wise and constructive in character.

That state associations can wield a strong influence in this direction is definitely established by the activities of the associations now in existence. During the past year, for example, the Ohio Hospital Association has formulated a legislative program including the promotion of certain definite pieces of constructive legislation looking to a more stabilized standard of hospital work. The Michigan Hospital Association, in cooperation with the Michigan Nurses Association, has prepared during the past year amendments to the laws governing the regulation of nurses, which provide for a class of assistants known as trained attendants. It also prepared a bill looking to the protection of hospitals from fraudulent information at the time of registration. During 1919-1920 the Illinois Hospital Association took active part in the defeat of certain bills which, in its judgment, were contrary to the general welfare of the sick, and in the passage of other bills which, in its judgment, were good and should become law. The Wisconsin Hospital Association, not yet a year old, has been doing some vigorous legislative work in opposing certain obnoxious bills and in formulating legislation on fair payment for workmen's compensation cases.

There are, of course, a number of other compelling reasons why every state in the Union and

every province in Canada should have a state or provincial association. Some of these will be dealt with editorially in future issues of THE MODERN HOSPITAL. From what we have said, however, on the influence that can be wielded by state associations on state legislation affecting hospitals and public health, it would seem that the opportunity therein represented is ample reason, if there were no other reasons, for the organization of state and provincial associations.

BUY ON THE BASIS OF GRADES

A SUGGESTION that $10,000,000 can be saved annually by the hospitals of this country is worth considering and acting upon. This is what Mr. Robert Bier, of the Bureau of Markets of the United States Department of Agriculture, says in his article on page 453, on the standardization of fruits and vegetables, that the hospitals can save in the purchasing of foodstuffs. How? By the adoption of a system of grades in obtaining supplies of fruits and vegetables, buying them on the basis of a definite standard, and seeing that the products delivered meet the requirements stated in the specifications.

The author points out that the United States Navy buys on the basis of definite specifications and through inspectors appointed by the Bureau of Markets sees that the products delivered meet these specifications. The inspectors at New York during a period of ten months, for example, accepted 8,337,493 pounds and rejected 273,263 pounds of foodstuffs, and cut 203,493 pounds from the weight of stock because it was in bad condition or improperly trimmed.

To the suggestion that hospital buyers may not have sufficient technical knowledge of the fruits and vegetables they are buying to apply grades to their purchases, Mr. Bier replies that the Bureau of Markets, which has offices in twenty-five of the leading cities of the United States, and authority to make inspection in one hundred and fifty-five other cities, will be glad to supply this lack of knowledge either by personal inspection or by suitable printed instructions.

In these days of the high cost of living, the hospitals owe it to themselves, to their patients, and to the public which supports them, to adopt every known method of economy in their management. The buying of foodstuffs as far as possible on the basis of grades is undeniably the most economical method of making purchases and should be more generally adopted. The Bureau of Markets of the United States stands ready to aid you along these lines.

BUILDING ORDINANCES AND HOSPITALS

SOMETHING needs to be done to bring order out of the chaos that exists in the building ordinances of our various communities, as those ordinances relate to hospital construction. A glimpse at this chaos and utter disregard of economical and efficient hospital administration is given us by Dr. Hadden in his article on "Building Ordinances in Relation to Hospital Construction," (p. 414), in which he discusses particularly the ordinances of Oakland, Cal.

Despite the fact that in many respects this city has good building ordinances, not only from the point of view of general building, but also of hospital construction, it has a number of impractical provisions which would never have found a place there had the ordinances first had the benefit of the mature consideration of a group of qualified hospital executives and architects. He cites, for example, the provision which requires heavy swinging metal doors in fireproof buildings for stairway exits where the independent elevator hallway enters the main hall; also the provision which forbids a room for the storage and repairing of mattresses or furniture. Another provision makes it necessary to provide at least two complete suites of at least two rooms each for patients and nurse of patients affected with communicable diseases. These suites are to be in a separate building, or if in the hospital proper, are to be completely isolated from other parts, with entrances from the exterior of the building only. No provision is made for feeding the occupants of these rooms, nor is cognizance taken of the fact that the hospital may be a strictly surgical or maternity unit.

Undesirable provisions can doubtless be found in the building ordinances of all of our cities. Ought not steps be taken to eliminate them? As conditions vary in different parts of the country, this is a task that might very well be assumed by the various state hospital associations, through appropriate committees. Certain broad principles might, perhaps, very appropriately be established by the American Hospital Association.

GENERAL PERSHING URGES PHYSICAL EXAMINATION

A campaign is being started for an annual physical examination for the young manhood of the country. The campaign is being endorsed by General John J. Pershing. The fact that more than 60 per cent of the young men drafted into military service during the war were physically defective accounts for General Pershing's desire for this measure. He feels that such an examination carried on by government officials, or private physicians under the authority of the War Department or the Public Health Service, would discover many remediable defects.

THE POMPEIAN ROOM

THE ITALIAN GARDENS

THE GOLF COURSE

HYGEIA SPRING PAVILION

SPRUDEL SPRING PAVILION

THE NORTH ENTRANCE

A Group of Interesting Views of West Baden, Indiana, where the twenty-third Annual Convention of the American Hospital Association will be held on September 12-16, 1921

TAKING PRECAUTIONS AT THE TYPHUS HOSPITAL IN WARSAW

By FRANCIS W. PALFREY, M.D., Typhus Research Commission, League of Red Cross Societies, Warsaw, Poland

TYPHUS fever is a disease which is particularly prone to attack physicians, nurses, and attendants who care for cases. Furthermore, it is a recognized fact that physicians so attacked usually have the disease in a severe form. The mortality among physicians, and especially among military surgeons, in the epidemic of the past two years in Poland, has been great. Yet more than in most diseases the method of transmission is understood, and preventive measures have been worked out by which the danger involved in the care of typhus patients should be rendered almost nil. Practical difficulties exist, it is true, which make it hard to enforce all necessary precautions in the stress of epidemics, and in the face of lack of supplies and equipment. Yet with proper methods systematically applied it is possible to carry out protective measures on a large scale on large numbers of patients.

Chief Purpose Study of Microörganism

The Typhus Research Commission of the League of Red Cross Societies had as its chief purpose the identification of the microörganism of the disease, and its study both in the louse and in the human being. To this end it was necessary to have access to a considerable number of typhus patients, so that they could be observed accurately throughout the course of their disease, and in fatal cases studied by autopsy. Investigation soon showed that even the best typhus hospital under Polish administration was too lax in its prophylactic measures to warrant the assignment of Red Cross nurses to work in it. The arrangement was therefore made that one division of this hospital should be put in the control of the commission and the American Red Cross, as a hospital within a hospital; and that such cases as we should select should be transferred to our service from other wards for the severest part of their course, and retransferred from our service as soon as they became convalescent. In this way we were able to effect a concentration under our care of the sickest patients in the hospital, and to retain these patients only during the active stage of their disease.

The entrance to the wards at the Typhus Hospital in Warsaw, Poland. The large can at the door is the naphthalene can, in which gowns are placed as soon as they are removed.

Plan of Division

The division of the hospital assigned to us was one of four contained in a large stone building of excellent hospital construction, completed shortly before the war. It consisted of a long entering corridor, opening on the left or southern side, upon a balcony, by high French windows and glass doors. On the right or northern side of the corridor opened a series of doors leading, in the order named, to the kitchen, two rooms intended for small wards, but one of which was used by us as a nurses' dining room, and the other as a nurses' dressing room, storeroom, a hopper room, and a large patients' bathroom, used by us for admission, delousing, and a linen closet. From the further or western end of the corridor opened the two large wards, men's and women's, in wings of the building. On the left, close to the entrance to the corridor, were a bathroom (emergency laundry), and a toilet for personnel. From the hall, before the entrance to the corridor, opened a laboratory and a linen and sewing room. This space, it is to be explained, represented only the clinical department of the Commission; the bulk of the Commission's work was performed in the laboratories of the Hygienic Institute, some distance away.

All furniture and equipment was obtained from stores or purchased through the American Red Cross, since the hospital had lost almost everything during the German occupation. Our division was in the charge of Dr. Monroe A. McIver of the Commission, and myself, assisted by Dr. Naparalska, Miss Stella Mathews, chief nurse, twelve nurses, and four "Polish aides," student nurses, all assigned by the American Red Cross. Dr. Aniela Apatow of the Polish hospital staff was assigned by the hospital to cooperate with us, and to keep records for the hospital of patients in our charge. Physicians were on duty throughout the day, and one made a later evening visit each night. Night emergencies were dealt with by the member of the Polish staff who was on duty, when requested by the nurses. The nurses were on duty in eight hours shifts. The three Polish orderlies, all of whom were immune from typhus, also served eight hours each.

The patients were admitted only by transfer from other wards. They were selected as a rule from the sickest admissions of the previous day. No cases were chosen for transfer where the evidence of typhus fever was not conclusive. On admission to the hospital all had passed through a routine process of delousing, according to a well planned system, but it was plain from the start that the process was carried out in a perfunctory manner, since a large proportion were found to have nits and live lice still on them. Since, as can never be too strongly emphasized, a single bite of a louse from a typhus patient will produce the disease in any nonimmune hospital worker, it was therefore necessary to establish a louse-proof barrier between our division and the rest of the hospital. Thus on transfer to us all patients were brought on stretchers, kept outside of our division, straight to our delousing room. There they were stripped of all clothing, while still on the stretcher, and removed to the delousing table (a white-enameled ready-made autopsy table drain-

ing into a pail hanging beneath, and fitted by us with white rubber pads). Then the stretcher, with all bedding and clothing brought with the patient still on it, was taken back to the ward from which it came. The patient was then inspected for lice, which were found most commonly on the head or in the pubic and anal regions. While the pubic or "crab" louse is not convicted of carrying typhus, true body lice were often found in the pubic hair.

The head, axillae, pubic, genital, and anal regions were then clipped close with barbers' clippers, supplemented as necessary by the safety razor, and a soap and hot water bath was given to all parts of the body except the head. The head was not bathed, since early in our experience we found that after bathing the scalp, drying it, and applying oil, it was still possible to comb live lice out of the deep layers of dandruff present on many of the patients' heads. We concluded from this that the water had prevented penetration of the oil, and thereafter ceased to bathe the head, depending instead upon clipping below the nit-bearing level, and upon oil, to kill lice in the scalp.

After the bath and drying, a mixture of equal parts of lightwood oil and kerosene was painted with a brush onto the scalp and about the genitals and anus, and rubbed less generously over the remainder of the body. The patient was then carried to his bed on a wheel stretcher kept in the corridor. The shaving and clipping was done on a white rubber sheet, to gather in all hair with possible nits and undetected lice, and which was carefully removed before the bath. The clippings were then transferred to a pail and boiled. The floors, which were of tile, were gone over with a kerosene mop after delousing each patient. The delousing of male patients was done by typhus-immune orderlies; female patients were deloused by nurses wearing the fullest protective dress, and instructed to inspect each other frequently. Both nurses and orderlies were closely supervised in this work by physicians, since in our opinion the greatest danger in typhus hospitals lies in the possibility of carelessness in the admission delousing.

Other Sources of Infection Found

Aside from the patients, other sources of lice had to be considered. All three of the orderlies and two kitchen maids were found to be louse infested, and had to be deloused. Linen from outside laundries was inspected before it was put away. While lice from such sources would probably not be dangerous until they had been transferred for a time to typhus patients, this possibility cannot be neglected.

In spite of these measures, which we believe to have been effectual in keeping our wards free from lice, it was nevertheless our practice to maintain precautions in our wards as if lice were known to be in them. To this end, physicians, nurses, and orderlies, on entering our division went directly to their respective dressing rooms and put on specially constructed louse-proof gowns. These gowns consisted of ordinary white surgical gowns sewed up the back so as to leave only the least possible opening behind the neck, with the addition of stocking-footed trousers closely sewed about the waist beneath the skirt. Large shoes or slippers were worn over the feet of these trousers. All seams were inspected for imperfections before a gown was accepted for use. The neck and wrists buttoned closely, and in all work, such as bathing or delousing, closely fitting rubber gloves were worn, and the neck and wrists of the gown were sprayed with cedarwood oil as a repellant. The nurses wore cloth head coverings to confine the hair. All were cautioned to avoid unnecessary contact with beds and to be on the lookout for lice on patients, on bedding, and on each other's gowns.

On going off duty, gowns were removed at the door of the dressing room and placed in large covered galvanized iron cans. Each gown as it was placed in the can was sprinkled generously with flake naphthalene, and the gowns used in each tour of duty remained covered in these naphthalene cans for not less than twelve hours. Experimental boxes of lice placed among gowns in this process were found to contain no live lice when the gowns were taken out, showing the method to be effectual.

Precautions Prove Successful

As a result of these measures our whole hospital personnel, as well as others of the Commission, and visitors who came occasionally to our wards, all escaped infection. Moreover, except in the first days, before our method of treating the heads was improved, no lice were found in the wards.

Except for safeguards against louse transmission of typhus fever, there was little in the management of our service that was different from that of hospitals for other medical diseases. In all typhus hospitals delirium is encountered in many cases. The bars over our windows were all that prevented at least one patient from jumping out. Care of the mouth is more important and difficult in typhus than in most fevers, and precautions must must be taken to guard against the transmission of the cause of suppurative parotitis from one patient to another. Pressure, bruises, or cold extremities contain special danger of infection or gangrene. Certain special methods of treatment are still in the trial stage, but a majority of patients recover without treatment other than the ordinary hospital régime.

Louse proof gowns worn by the medical personnel in the Typhus Hospital.

But in conclusion it must be emphasized that precautions against internal infection in typhus hospitals is not a mere luxury for the staff, but rather the first essential for the usefulness of the hospital. We were fortunate in being able to carry out the necessary precautions thoroughly, but most typhus hospitals have been less favorably situated.

Typhus a Disease of Epidemics

Typhus fever is essentially a disease of large epidemics, in times of disaster and privation. Too commonly, therefore, the typhus hospital is overwhelmed by great numbers of patients, with personnel, equipment, and supplies wholly unable to meet the demands. The overworked staff then fails to maintain precautions and its members soon come down with the disease. Then follows a stage when patients die in large numbers, not so much from the disease as from starvation, exposure, or thirst, being able to get even a cup of water only by the kindness of some other patient less ill than themselves. Thus the typhus hospital, without internal prophylaxis, may fail to serve its purpose as a hospital.

OCCASIONAL TUBERCULOSIS CLINICS IN THE STATE OF NEW YORK

By ELLIOTT WASHBURN, M.D., New York City

EARLY in 1918, intensive efforts on the part of the Tuberculosis Committee of the State Charities Aid Association of New York to encourage the establishment of additional tuberculosis dispensaries in the state and to increase the efficiency of those already in operation, emphasized a need in tuberculosis work which no existing agency met. This was the need of facilities for examination of the lungs by physicians especially qualified to make them in communities too small to have regular tuberculosis dispensaries, and which ordinarily were not so fortunate as to have resident physicians with any special training and experience in the diagnosis of tuberculosis, more especially in its early stages. Similarly, in such communities there was usually a lack of nurses trained in that special branch of public health nursing which is peculiar to tuberculosis. In small cities, towns, and villages, and in sparsely settled rural localities, it was difficult, if indeed not impossible, for persons in poor or very moderate circumstances to secure expert medical and nursing advice and service in tuberculosis. This may account for the somewhat large number of cases of the disease which have been disclosed by occasional clinics.

The Committee conceived the idea of securing the establishment of tuberculosis clinics in small communities, at which expert medical examinations would be provided at irregular intervals. The irregularity of the intervals at which they were held gave rise to their title, "occasional clinics." As the plan has developed in this state and extended in others, they have also been called "traveling," "itinerant," and "migratory" clinics. Whatever their name, their purpose is substantially as outlined.

The general plan of the Committee was to utilize to the fullest possible extent all tuberculosis agencies existing in communities in which clinics appeared to be needed, and to supplement through its own resources those of whatever individual communities could not for some reason provide for themselves, thus to make clinics possible.

Three Clinic Essentials

The three essentials for conducting an occasional clinic in a community are funds, a physician skilled in the diagnosis and treatment of tuberculosis, and nurses, of which at least one must have training and experience in public health tuberculosis nursing.

It was decided to inaugurate the experiment in Westchester County, because there existed in that county a number of fairly active local tuberculosis sub-committees of the Association's Tuberculosis Committee which had funds available for occasional clinic purposes, and because most of the communities of the county were near enough to New York City to render available the services of physicians expert in tuberculosis, and further because a number of the communities were fortunate enough to have public health nurses. Thus the three essentials for conducting such clinics were available. It remained for the Committee to bring to the attention of the several communities in which the need of occasional clinics appeared to be greatest, their expediency, and to outline to the several tuberculosis sub-committees the best method of procedure. This was the work of special agents attached to the Committee's staff. It was agreed that the clinics would attract more patients and would be more favorably received by local doctors if the clinic physician was one of recognized ability in tuberculosis, and one not engaged in medical practice in the community served by the clinic. It was hoped to thus assure the local doctors that the clinic was in no way intended, or to be permitted, to interfere with their private practice. The local tuberculosis committee provided the place of holding the clinic, the rather limited equipment absolutely necessary, paid the examining physician, and provided the nursing service. The parent Committee sent one of the members of its advisory nursing staff to assist the local nurses.

Occasional Clinics a Success

The first occasional tuberculosis clinic was held at Harrison on May 15, 1918. It was a great success. Others were held in the county, the marked success of which attracted the attention of tuberculosis workers throughout the state and elsewhere. From this auspicious beginning in Westchester County, "occasional clinics" have become state wide. They have established their usefulness in communities which greatly needed them and which have suffered heretofore from their lack. They have brought to light the fact that much hitherto suspected but unrecognized tuberculosis exists in small communities, especially in rural districts, which have been feeding tuberculosis into the state much faster than the earnest endeavors of the larger communities have been suppressing it. They have come to stay, and mark an epoch in the warfare against tuberculosis. They are practical, not expensive, and satisfactory.

As the work has extended over the state these clinics have been held and are now being held under the auspices of the state department of health and the State Charities Aid Association working jointly, and by both working separately, and by local communities working alone of their own initiative. All existing agencies are cooperating to make them successful—including private physicians, physicians connected with state, county, and local tuberculosis sanatoriums, and hospitals, and attached to the staffs of the state department of health, the State Charities Aid Association, and local tuberculosis dispensaries; state, county, local, and private tuberculosis, public health, school and child welfare nurses; and state, county, and local tuberculosis and public health agencies of all kinds; much valuable aid has been rendered by private individuals.

Since their beginning, these clinics have been held in more than 120 cities, towns, and villages in the state, at which more than 6,000 persons have been examined by skilled diagnosticians. A considerable number of patients were found to be actively tuberculous and many were classed as "tuberculosis suspects." The clinics have resulted in the admission of a considerable number of patients to tuberculosis hospitals and sanatoriums, in placing many under medical care and nursing supervision in their homes, in securing examinations of contact cases, in supervision of suspects through the medium of open air schools and preventoria, and in taking precautionary measures in cases of adult suspects.

Occasional clinics have been firmly established in New York State and have demonstrated their great value. They serve best those communities which are too small to have regular dispensaries.

Essentials for Conducting Clinic

The essentials for conducting an occasional clinic are (a) an active supervising tuberculosis agency; (b) a modest amount of money; (c) a clinic physician who is known to be expert in the diagnosis of tuberculosis in all its stages; (d) a nursing staff of which at least one must have training in the public health aspect of tuberculosis nursing. In the clinics of Westchester County all of these essentials were available. In clinics held in some localities of other counties one or more were available, but in many localities where it was deemed desirable to hold clinics, not even one of these essentials was available in the locality itself and it became necessary for some outside agency to supply all of them. This has been done in some instances by the state department of health, in others by the Tuberculosis Committee of the State Charities Aid Association, in others by both, in others by county tuberculosis hospitals, and again by local sub-committees of the State Charities Aid's Committee, or by local tuberculosis committees working independently.

An account of the manner in which a clinic is carried through may be of interest. Briefly, it is as follows:

The selection of a locality in which a clinic is desirable is usually an easy matter. When the place has been determined, a supervising nurse of the Tuberculosis Committee of the State Charities Aid Association, or of the state department of health, or of the especial agency which intends to hold the clinic, proceeds to the place in order to pick out suitable, available rooms for the clinic. All kinds of quarters have been utilized for clinic purposes—as public halls, city halls, town halls, churches, parish houses of churches, rooms of local health centers, hospitals, school buildings, private houses, fire stations, physicians' houses, hotels, dispensaries attached to manufacturing plants, court houses, ordinary dispensaries, and vacant stores—one clinic was held in the open air. Usually a place which can be made to serve the purpose is not difficult to find.

Procedure in Conducting Clinic

Prior to the arrival of the nurse, the state department of health notifies the sanitary supervisor (state district health officer) of the district of the pendency of the clinic, and he informs the local health officer and urges his cooperation. The state department of health provides the nurse with a list of all cases of tuberculosis reported for the five years immediately prior to the clinic. She also obtains from the local health officer information in regard to local cases within his official knowledge. The nurse needs not less than one week, preferably two weeks, to properly work up each clinic. She visits the addresses of all cases on the list which has been provided for her, in order to encourage the attendance at the clinic of contact cases. She also visits any returned tuberculous soldiers and sailors in the locality, in order to secure the attendance at the clinic of any of those who need examination and advice.

The state department of health sends to all physicians in the locality served by the clinic a letter stating the purpose of the clinic and urging them to attend. Similarly, the nurse visits every physician for the same purpose. Usually several local physicians attend the clinic, and in a number of instances the clinic examiner has examined patients in their homes, when they were unable to come to the clinic, at the request of local physicians. This free consultation service has been a source of much satisfaction to patients and to physicians. To be sure, in a few instances a few physicians appeared to resent the coming of the clinic and its attending physicians as an intrusion upon their territory and a reflection upon their diagnostic and professional ability. Happily such instances are few, and they are far overbalanced by repeated instances of cordial and active cooperation on the part of local physicians. Publicity in regard to the advent of clinics and also as to the results of clinics has been obtained by wide use of the newspapers.

The expert examiners for clinics have been drawn from any available source: thus physicians in private practice specializing in tuberculosis, physicians attached to the medical staffs of tuberculosis hospitals and sanatoriums and dispensaries, or to the staff of the state department of health, or that of the Tuberculosis Committee of the State Charities Aid Association, have been utilized. Their compensation has been nominal in most instances. The medical superintendents of county hospitals have found that conducting the examinations of the clinics has served as an excellent medium for their own introduction to their counties, and has increased the use of their hospitals.

In addition to the value of such clinics in determining the presence or absence of tuberculosis is the fact that the examinations have disclosed many physical defects and diseased conditions not due to tuberculosis. These have been brought to the attention of the patients' physicians.

Work Does Not End with Clinic

An all-important thing to remember is that the work does not end with holding clinics. The most important work is the follow-up cases discovered at the clinic, in order to be certain that the cases are under proper medical, nursing, and home care; to secure admission to tuberculosis hospitals of patients needing such care, to insure the examination of contact cases, and in many other ways to promote a successful campaign against tuberculosis. The nurse usually stays for a few days after a clinic and subsequently revisits the locality for follow-up work, providing no local tuberculosis or public health nurse or county tuberculosis nurses are available for this work.

A meagre equipment only is really essential. It includes a desk or table for the nurse, a supply of chairs, scales which usually may be borrowed, thermometers, wooden tongue depressor, paper handkerchiefs, clinic record charts, a small table and a chair for each examining physician, and a revolving stool in each examining room. A piano stool is always available and makes a very satisfactory examination stool. A couple of waste baskets are useful, and a few large paper bags are needed to receive soiled tongue depressors and paper handkerchiefs. A few sheets and towels are necessary; also a couple of white coats for the doctor, and some examination wraps for female patients. The physician needs his stethoscope. An instrument for determining blood pressure is often desirable. In few instances has it been practical or even possible to make x-ray examinations at the time of the clinic, but in numerous instances arrangements have been made so that such examinations were made subsequent to clinics, through cooperation between the regular medical attendants of patients and the nurses delegated to do the follow-up work of the clinic.

Objections have been raised to these clinics on the

ground that they are not sufficiently scientific, and that "suspects" found at the clinic are not reexamined sufficiently often to establish whether or not they are really tuberculous; and that the absence of x-ray facilities makes diagnosis impossible in some cases; in short, that they are "too primitive." To some extent this criticism is just. On the other hand, repeat clinics, which have already been held in numerous instances, careful follow-up nursing service, and the x-ray service which is now possible, should do much to allay this criticism.

AN EXPERIMENT IN THE EDUCATION OF ORDERLIES

By ETHEL JOHNS, R.N., Director of Nursing, Vancouver General Hospital, Vancouver, B. C.; Assistant Professor of Nursing, University of British Columbia

THE organization and management of orderly service in hospitals, both large and small, has always been a serious problem in hospital administration. Many factors contribute to make it so. To begin with, orderlies have been, and still are in many hospitals, a poorly paid group, working long hours, sometimes indifferently housed and poorly fed. Most hospital administrators of ten or fifteen years' experience can recall the grisly cockroach haunted caves in the basement of the oldest part of the hospital which were styled "help's quarters." Small wonder, therefore, that a large labor turnover resulted and that there was an unduly large proportion of the down and out, drunken, and incompetent in the ranks of this service. This state of affairs was the more deplorable in view of the fact that competent orderly service adds very greatly to the comfort and safety of patients, and is a valuable adjunct to both the medical and nursing services.

Betterment Movement Started

But even in those days there were in the ranks men of a good type with a genuine interest in nursing care who were a tower of strength to overworked nurses, and a great comfort to patients. Some of these men have developed into the leaders of the new movement toward sounder education for their fellows. They saw clearly that if orderly service could be placed on a higher educational plane, a like improvement in the quality of personnel might result, such as had already been apparent in the case of nursing. Superintendents of nurses were, unfortunately, not always as sympathetic as they might have been, and consequently development has been somewhat slow, but experiments are now being made in various parts of the United States and Canada which signify a brighter outlook for the future. Possibly the experiment now being conducted in the Vancouver General Hospital, British Columbia, Canada, may be of interest to hospital administrators contemplating development along these lines.

This thousand bed hospital has a very active service, a large proportion of which is devoted to the care of male patients. Since no medical school exists in the province, medical students are not available as assistants, nor is there a very large intern service. This means that a large number of orderlies must be employed. The usual faults of the old fashioned orderly service were painfully apparent under such conditions, especially as the shortage of interns incidental to the war made it necessary for these men to undertake procedures and treatments far beyond their powers, unless thorough and systematic instruction was afforded them.

Six Months' Course Given

This hospital is fortunate in possessing a chief orderly, Mr. G. A. McConnell, who combines good administrative ability with marked interest in teaching. With the consent and cooperation of the general superintendent, Dr. Malcolm T. MacEachern, a six months' course for trained attendants was initiated in November, 1919, by the director of nursing and the chief orderly.

The curriculum was as follows:

Subject.	Periods	Instructor
Instruction in practical male nursing procedures (demonstrations).	Twenty	Chief orderly.
Instruction in first aid methods.	Eight	Resident staff physicians
Elementary anatomy and physiology.	Six	Director of nursing.
Drugs and solutions.	Six	Instructor of nursing.
Ethics.	Two	Director of nursing.
Preparation and service of food.	Three	Chief dietitian.
Nursing emergencies	Four	Chief demonstrator of nursing.
Management of mentally disturbed patients.		General superintendent.

Arrangements were made with the local branch of the St. John's Ambulance Association whereby men completing this course were granted the certificate of that body, as well as the certificate of the hospital as trained attendants. A group of fifteen men who were considered suitable were selected from the sixty orderlies employed at that time. Of these, six dropped out during the course for various reasons, nine presented themselves for examination, seven passed very creditably and the remaining two are taking the course over again and appear likely to pass their supplemental examination. Of the seven who qualified, six are still in the employ of the hospital and are serving in such departments as the operating rooms and the genito-urinary department, where unusual skill is required, and one man obtained a well paid and responsible position in a lumber camp in charge of first aid work. The stabilizing influence of the men who remained in the hospital on the other orderlies is remarkable. They are recognized as possessing superior qualifications and are treated accordingly.

Twenty Qualify for Similar Course

In November of this year it was decided to conduct a similar course and the whole orderly staff have been undergoing a sort of probationary period during which their fitness for training has been tested. This portion of the course is under the direction of the chief orderly, and is compulsory for all men employed as orderlies. Twenty out of a total of about fifty desired to take the full course at the close of this probationary period and came up for examination. A minimum mark of 80 per cent was required in order to qualify. Fourteen obtained it and four came near enough to it to be eligible for a supplemental examination, so it is probable that the whole group of twenty will take the full course.

It is far too early to forecast results, but even at this early stage of what is frankly an experiment, certain

benefits are apparent. These men are raised in their own estimation by the fact that they are receiving instruction. Some inducement to them to improve themselves is afforded by the increased wage and the possibility of lucrative employment outside of the hospital. Above all, a certain *esprit de corps*, such as exists in the training school for nurses, is beginning to make itself felt, this has as its most noticeable result a better service to the patients. The labor turnover has been appreciably reduced and in consequence a better stabilized service has been maintained. These results, alone, it may be justly claimed, have justified the experiment.

Many criticisms of the course as it stands can be made. It can be claimed that it either teaches too much or that it teaches too little. It was most difficult to judge what should be included and what should be left out. The teaching throughout was of the simplest possible character, and the topics of the anatomy and physiology series will serve to illustrate what pains were taken to make the instruction such as could be readily grasped and understood. The topics were: (a) The human body: What it is made of and how it is divided; (b) The skeleton and the joints; (c) How the blood circulates and why; (d) How we breathe; (e) How we use our food; (f) The wastes of the body.

As will be seen by these titles, the phrasing used was of the simplest type, and illustrative material, including lantern slides, was utilized at every lesson. Sufficient instruction in drugs and solutions was given to enable solutions to be made and doses to be measured with accuracy. Instruction was not given in the use of the hypodermic syringe. The men were taught to set a tray attractively and were shown how to make simple liquid nourishment.

The practical demonstrations were, naturally, the most important part of the course, and every effort was made to render these men proficient in the care of genito-urinary cases. Special lessons in the anatomy of the genito-urinary tract were given them in order that they might grasp the rationale of the various procedures. While taking the course they were on duty as usual, much in the same manner as pupil nurses would be, and their practical work on the wards could be closely checked. They received full pay and maintenance throughout.

Possibly the most interesting mental reaction was shown in their response to the lectures on ethics. The writer frankly approached this subject with considerable diffidence, but taking her courage in both hands, plunged boldly into the subject. She had expected a respectful if somewhat cynical audience. She found a group of men deeply sensitive to ethical guidance and pathetically eager to demonstrate their willingness to raise the morale of their group. The nurse instructors who assisted were alike impressed with the earnestness of the men, whose attitude was most respectful and courteous. In fact, one of the results of the course has been to increase the mutual respect of the nursing and orderly groups, and to check rather than to encourage undue familiarity between them.

In view of the fact that there will be a growing demand by industrial concerns in this province for men possessing training of the nature outlined above, it would seem that we are justified in continuing our experiment. Our ultimate aim is to place the whole orderly service in this hospital on a training school basis, but it will probably be some time before this far-reaching change can be brought about. We feel that by so doing we shall provide a training ground for a group of men who would be most useful to the hospital and to the community under normal conditions, and who might well, in times of epidemic or disaster, prove to be invaluable. Doubtless many other institutions are conducting like experiments. It would be interesting to compare and appraise them with a view to ultimate standardization and legal recognition.

RED CROSS CONSOLIDATES DIVISIONS

Dr. Livingston Farrand, chairman of the central committee of the American Red Cross, has announced certain changes in divisional lines in connection with the more economical operation of the Red Cross program. The number of divisions is to be reduced from thirteen to seven.

The Northwestern Division will remain as it is, however, until the other consolidations have been effected and the new system is well under way. Until the ultimate change affecting the Northwestern Division is made, the divisions will be as follows:

New England—Maine, Massachusetts, Rhode Island, Vermont, and New Hampshire, with headquarters at Boston.

Atlantic—New York, Connecticut, Pennsylvania, New Jersey, Maryland, and Delaware, with headquarters at New York City.

Lake—Michigan, Indiana, Ohio, West Virginia, and Kentucky, with headquarters at Cleveland.

Southern—Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Tennessee, with headquarters at Atlanta.

Central—Illinois, Wisconsin, Iowa, Minnesota, Nebraska, South Dakota, North Dakota, Wyoming, and Montana, with headquarters at Chicago.

Southwestern—Missouri, Arkansas, Kansas, Oklahoma, Texas, Colorado, and New Mexico, with headquarters at St. Louis.

Pacific—California, Nevada, Utah, and Arizona, with headquarters at San Francisco.

Northwestern—Oregon, Washington, and Idaho, with headquarters at Seattle.

In the new grouping, the New England Division will have the same boundaries as in the past. To the Atlantic Division will be added the states of Pennsylvania and Delaware from the Pennsylvania-Delaware Division, and Maryland from the Potomac Division. Michigan will be transferred from the Central to the Lake Division, and West Virginia, which has been in the Potomac, will become a part of the Lake. Virginia from the Potomac, and Alabama, Mississippi, and Louisiana, which have formed the Gulf Division, will go into the Southern. The Northern Division will be consolidated with the Central, and Wyoming, which has been in the Mountain Division, also will go into the Central. Colorado and New Mexico, which have been in the Mountain Division, will be added to the Southwestern. Utah, which has been in the Mountain Division, will be joined to the states in the Pacific Division.

ISSUES MONOGRAPH ON ANESTHESIA

The National Anesthesia Research Society has just issued a publication on "Nitrous Oxide-Oxygen Analgesia and Anesthesia in Normal Labor and Operative Obstetrics." The society believes that it has here the most authoritative word in the literature of the subject covered. The publication committee was composed of ten men practically all of whom are men of national reputation in their special line. The editor was Dr. F. H. McMechan, who is well known to all who are familiar with the history or use of anesthetics.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
122 W. 85th Street, New York City

EDUCATION VERSUS TRAINING

BY ANNIE W. GOODRICH, ASSISTANT PROFESSOR, DEPARTMENT OF NURSING AND HEALTH, TEACHERS' COLLEGE, NEW YORK CITY; DIRECTOR OF NURSING SERVICE, HENRY STREET SETTLEMENT, NEW YORK CITY

A RECENT call to deliver an address on nursing education was accepted with some mental perturbation, through the indication that an attitude still prevailed toward the subject, on the part of those concerned, that, with the developments in the fields of education, science, and health, should, it would seem, have disappeared. The urging of emphasis on the relation of the nurse to the doctor; a gentle caution of restraint in discussing the required body of theory; the reappearance of the "overtrained nurse," a characterization once popular but that has gradually faded out; all conspired to arouse this apprehension. Subsequent events, however, did not justify the preliminary anxiety. A group of some twenty graduates of the Teachers' College, Columbia University directors, and instructors of schools of nursing and nursing organizations, gathered together at dinner. An attentive and seemingly interested audience was reassuring, while the revelation of a notably progressive and extensive program of nursing education, with good promise of its early launching, was revivifying indeed. It proved a day of happy and inspiring episodes. Nevertheless, that day has resolved itself into the insistent question—"Does, after all, any appreciable part of the community yet grasp the significance of the increasing dissatisfaction of young women with our training schools for nurses?"—and a haunting memory of a row of newborn babies in the grim ward of the venereal department of the municipal hospital of that city.

Contemplative knowledge, Dr. Dewey informs us, has been superseded, "through the demonstrations of science that knowledge is power to transform the world," by practical knowledge.

"Nowadays, if a man, say a physicist or chemist, wants to know something, the last thing he does is merely to contemplate. He does not look, in however earnest and prolonged a way, upon the object, expecting that thereby he will detect its fixed and characteristic form. He does not expect any amount of such aloof scrutiny to reveal to him any secrets. He proceeds to do something, to bring some energy to bear upon the substance to see how it reacts; he places it under unusual conditions in order to induce some change."[1]

We know today with an almost mathematical certainty the physical unfitness that can be found in any given unit of population. Various reliable authorities have reported figures. We are informed, for instance, that in a unit of population of 100,000 there would be approximately 2,000 constantly sick, 1,000 suffering with tuberculosis, one out of eleven would be potential mental cases, one to ten would be the ratio of venereal disease. The weekly health index from the Department of Commerce, Bureau of the Census, informs us of the variations in the infant mortality rates throughout the United States. New York's is lower than some smaller industrial towns, but still higher than London's report for 1920, seventy-five per 1,000 births.

We know today with a hardly less mathematical certainty the percentage of these conditions that can be remedied, a large one, and the percentage, even larger, that can be prevented.

Whatever the future may bring, every health program today, whether for war or for peace; whether Federal, state, county, or municipal; whether dealing with the remedial aspects of the situation through the various institutions and organizations for the care of the sick, or dealing with preventive measures through various organizations and institutions such as schools, factories, and homes, demands in ever increasing numbers the worker designated as the nurse. The most casual observer of statistics issued by the visiting nurse service of the Henry Street Settlement for the year 1920, must be impressed with the opportunity of the nurse to function remedially and educationally in the community. In one year, nurses were called to 42,902 persons, and had 336,722 contacts with those members of the community most likely to be victimized by the defects of our social system, for no investigation has yet revealed that a majority of those who are unable to take their place honorably and effectively in the community are individuals of good physical condition and surrounded from birth with a reasonably good environment. Quite the contrary.

When curative medicine was seeking for a tool with which to apply its remedies, or surgery to carry out its technical procedures, the trained hands of the nurse, motivated by medical minds, functioned perhaps adequately, but the wider demands of the field of preventive medicine call for a different type of worker.

Under the caption "An Epitome," a student in the department of nursing and health, Teachers' College, writing of the essentials for the practice of nursing, in cryptic phrases portrays the nurse required today. Of this portrait we have but one criticism to offer, the inclusion of great enthusiasm as a requirement is redundant! The

1. Dewey—Reconstruction in Philosophy, p. 112.

absorption and assimilation of such a content of education as is suggested would supply, we believe, an unceasing stream of that emotion.

A change has taken place in the past few years in the attitude of educators, of the medical profession, and the public at large, toward this public servant, a greater change perhaps than even those who are most closely concerned in the developments in the fields of nursing realize. But is it through their awakening appreciation of the need of a different preparation for the fields for which the nurse is destined, or through the necessity of attracting young women in larger numbers to those fields?

The hospital, the greatest sufferer in the shortage, since it has depended so entirely on the student nurses, finding them an easy method of obtaining service at the smallest price, through the many fields now open for women, through easier means of self-support, and, above all, through its own failure to give the students a satisfying content of education, is obliged to accept the fact that some readjustment is called for since the former things have passed away.

Human nature, however, has not changed, "Man is possessed," says Veblen, "of a taste for effective work, and a distaste for futile effort. He has a sense of the merit of serviceability or efficiency, and of the demerit of futility, waste, or incapacity. This aptitude or propensity may be called the instinct of workmanship."[2] The student mind, so illustrative of this instinct, has always been and still is indifferent to commercial ends except in so far as daily bread is imperative, or money is needed to procure mental satisfaction, and the student mind is increasingly with us. Thousands of young women, where formerely there were hundreds, are now going through the high school, thousands even are pressing for admission to our overcrowded colleges. Never in the history of the world were minds so eager for knowledge or so alive to the purposes to which it should be bent, and for that reason the call of the field of nursing should make the greater, not the less, appeal.

To quote again from Dr. Dewey: "In fact, the whole conception of knowledge as beholding and noting is fundadamentally an idea connected with esthetic enjoyment and appreciation where the environment is beautiful and life is serene, and with esthetic repulsion and depreciation where life is troubled, nature morose and hard. But in the degree in which the active conception of knowledge prevails, and the environment is regarded as something that has to be changed in order to be truly known, men are imbued with courage, with what may almost be termed an aggressive attitude toward nature. Conditions and events are neither to be fled from nor passively acquiesced in; they are to be utilized and directed. They are either obstacles to our ends or else means for their accomplishment. In a profound sense, knowing ceases to be contemplative and becomes practical."[3]

In those easy days of contemplative knowledge, the learned Diogenes out with a lantern searching for an honest man was probably a stimulating sight, but today, with science busy forging tools for the transformation of the world, Diogenes, to attract attention, would have to discard his lantern and apply his learning to the creation of an honest man.

Whatever the past may have accepted as adequate practice, the present, as a universal practice, is increasingly requiring that the hands be directed by their owner's head. In the November issue of the *Vassar Quarterly* appeared two articles that give evidence, approached from different angles, of this fact. Under the title, "Do College Women Believe in Education?" Dr. Spalding of Yale deals with the question of a democratic use of education, while under the title "Workers' Education," is presented the effort of the workers to develop a program of higher education for themselves.

When, beginning with the kindergarten, we cease to teach competition for possession or advantage over others, and teach cooperation for a project, the carrying out of which calls for the creative ability of each, the new education will be assured.

Without perhaps a full awareness, the community is embarked on a great project, the creation of a one hundred per cent perfect human machine through which that energizing current called life can function to its greatest ends. Knowledge too precious to be put to such uses through every available human instrument should find its place with the jeweled crowns of discarded monarchs in the locked glass cases of a museum.

When the public grasps the fact that we are not seeking to elevate nursing into an aristocracy of learning, but to apply all available knowledge to this project through the nurse, numerically so strong a factor in the undertaking, there will no longer be this effort to cramp and stultify her education. And when the doors of knowledge are freely opened, students will awaken to the import of the nurses' task and will flock to our schools of nursing in far greater numbers than before.

2. Veblen—The Instinct of Workmanship and the Desire for Excellence.
3. Dewey: Reconstruction in Philosophy, p. 116.

NURSING JOURNAL ANNOUNCES NEW EDITORS

The American Journal of Nursing announces its new co-editors as Mary M. Roberts, of Ohio, and the present acting editor, Katherine DeWitt. As Miss Roberts is completing her second year of study at Teachers College, New York, she will not assume her new duties until August first. Miss Roberts graduated in 1899 from the Jewish Hospital, Cincinnati, and then became clinic nurse in the Erlanger Hospital, Chattanooga, Tenn., after which she went to Savannah, Georgia, where she established the training school of the Savannah Hospital, becoming its first superintendent. She did private duty nursing in Chicago for four years, and later held the position of superintendent of the Dr. C. R. Holmes Hospital, Cincinnati, for some years. During the war she was director of nursing of the Lake Division of the American Red Cross, then director of the unit of the Army School of Nursing at Camp Sherman. Since that time she has been studying at Teachers College. In association work Miss Roberts has been president of the Ohio State Association, and was a member of the Ohio Committee of Nurse Examiners.

From her experiences in various lines of nursing work it will be seen that Miss Roberts is well fitted for her new work.

INFLUENZA INCREASING

Influenza has been steadily increasing in New York City since the first of the year, although not reaching epidemic proportions. From January 1 to March 14 there had been 1,038 cases and 120 deaths reported. At present there are more cases being reported daily to the health department than at any time during the winter.

To be discontented with the divine discontent, and to be ashamed with the noble shame, is the very germ of the first upgrowth of all virtue.—Kingsley.

CONVALESCENT INSTITUTIONAL NURSING

By KATHRYN M. WOOD, R.N., Directress, The Burke Foundation, White Plains, N. Y.

INSTITUTIONS for the care of convalescents are increasing. The next ten years promises to see very notable extensions in this field, as several large endowment funds are planning buildings and extensive services outside of our great cities. The provision for New York already includes general medical and surgical adult convalescents, cardiacs of all ages, and different degrees of disability, children of various age groups and types—and partial or beginning accommodation for the pre-tuberculous, orthopedics, psychoneurotics, with separate accommodation for different classes, such as pay-convalescents, the colored, etc.

It is estimated conservatively that there should be one convalescent bed to every ten hospital beds in a large city, the number varying with the living conditions and other factors. New York's requirement should be between 3,000 and 4,000 such beds. A fair average (considering all ages of inmates) is one nurse to twenty convalescent patients (including head nurses), which would keep more than a hundred and fifty nurses engaged in this vicinity alone. At the Burke Foundation ten nurses, including head, night and surgical nurses, care for three hundred patients; that is, one day nurse to forty-five or fifty patients. But the skilled supervision of convalescence is only beginning to be developed; there are indications of future special groupings which will demand more nurses per number of patients. And home convalescent care, though now credited mainly to standard social service, is steadily augmenting and separating, so that large numbers will gradually be enlisted in this health endeavor. It is evident that a considerable and increasing proportion of nurses in the large population centers will be needed in the convalescent field.

Nurses and patients playing golf.

Convalescence may not, perhaps, be rightly called a nursing specialty as yet, but tends undoubtedly to become so, in measure with public health or industrial nursing. America is developing a new type of convalescent institution and home aid, which takes the patient earlier from hospital or clinic, completes wound healing, resolutely overcomes the prevalent border-neurasthenia, teaches food and hygienic good sense, provides heartening and hardening recreational and occupational exercises, plus a measure of pre-vocational training—and graduates the person (no longer a patient) into possibly handicapped, but often fuller life work and play.

Qualifications for this kind of nursing may well be indicated by a partial outline of the work. Patients come to us weak, introspective, disheartened, and with many prohibitions, fears and beginning invalid traits; the home desire is often strong upon them; they are hypersensitive, in a social mixture of much disturbing diversity. In some, the country quiet even augments an early depression or homesickness. The nurse needs to make swift estimates of temperamental, racial and medical fitnesses, thoughtfully assign to rooms, and adroitly smooth and postpone many seemingly large difficulties. Then follows, during the succeeding days, the gradual adjustment to normal plain diet, occupational and recreational therapies, increasing outdoor exercise, mutual helpfulness and courage. It is notable that the homes providing this fuller reconstructive service are increasingly used for their mental and social therapies. Throughout this period, reconstructive both physically and mentally, the nurse finds constant demand for her best sympathy, tact, and judgment, in adjusting and alleviating an almost endless train of doubts, queries, minor complaints, etc. Nor is the higher nursing skill left in abeyance, for many of these patients have been most seriously ill and are subject to swift relapses and intercurrent disease. The majority of convalescent homes have a physician only upon call, and the nurse in this situation is peculiarly "the doctor," frequently deciding whether complaints and symptoms are of passing significance, or call for urgent medical attention. As the convalescent emerges into fuller health and ambition the nurse's advice is sought on a wide variety of practical life questions, ranging from personal hygiene to the most intimate domestic and occupational problems. Lectures and demonstrations are frequently given on home and social betterment subjects.

Children's convalescence involves a specialized service, all the way from infant feeding to continuation schooling; yet the child convalescent is but a small edition of the adult, with kindred depletions, nerve and mental imbalances; to be refilled and normalized by these environmental and personal influences. The responses of children and youth are ever more prompt and complete, which recompenses in some measure for the extra wear and fatigue of their supervision. The ratio of nurses is to be understood as increasing with the younger age groups, until one to every ten or fifteen patients is reached.

The trend of convalescent supervision in the institution, or at home, is definitely toward more elaboration, especially of the mental, occupational, and social therapies. The borders of this field are being extended rapidly, as in heart disease, psychoneuroses, the pre-tuberculous, nutritional disorders, preventive recuperations, etc. The increased costs and skilled attendance of this more refined and individualized service may in larger institutions be to some degree offset by the patients' assistance and leadership (highly restorative to the doer), such as is extensively developed at the Burke Foundation. Practical nurses, of exceptional qualifications, find limited place in this work, and may receive a partial training therein.

Male nurses are rarely required, even where large numbers of men are accommodated; satisfactory attendants are readily drafted from among the patients needing long periods for recuperation.

From the viewpoint of the nurse, her ambitions and contentments considered, there are certain clear limita-

A supervised short-golf tournament and lawn-party at the Burke Foundation, White Plains, N. Y.

tions and advantages. Some of her higher technical skill (e. g., operating and sick-bed) gets little exercise, and a varying degree of detachment from the "leads" and associations of active city nursing occurs which may in many instances be undesirable. The reverse side has to do mainly with her health, and the gratification of seeing immediate and remarkable results. Though the directors of convalescent homes would perhaps not wish it generally understand that they accept handicapped aides, the fact holds good that the nursing staffs often include persons who have, in various ways through illness, operation, or nerve-fatigue, become somewhat depleted and distressed with high-tension institutional and nursing services, and seek recuperation, plus the satisfaction of agreeable occupation. The nurse herself invariably convalesces. The environment is charming and there is freedom from those stressful late afternoon hours that so drain energy; food is of the best; light exercise out of doors is a sure accompaniment; while an underestimated health intake results from the constant dealing with patients on the upgrade, patients being filled with new life,

It would be strange if anyone could keep from getting well with woods like these to walk in.

hope, and courage before one's eyes. To some, this country half-isolation may prove too pronounced, and these may return readily, with renewed spirit, to more energetic assignments.

The remuneration in convalescent institutions is always larger than at first appears. These plants have to become measurably and happily self-contained; hence much personal upkeep, entertainment, etc., is afforded to the staff at low cost or free, and there is ever less incitement to expenditure. Nor does this service necessarily lead away from "a future." Directors and aides for the many new institutions are apt to be chosen from among these trained assistants; and not alone for the convalescent places, but for a large group of kindred institutions and health organizations which deal with handicapped, chronic, orphaned and "fresh air" thousands. Another and important outlet and interchange is via social service, public health, industrial and special clinic nursing, which have so many interlocking interests with convalescence. On return to private nursing it is found that higher skill in managing the convalescent period (the longer part of any illness) is a valuable asset. It is significant that nurses stay long in convalescent positions, and often return to them.

NEW REGULATIONS CONTROL NURSING HOMES

The *South African Nursing Record* for January announced that new regulations controlling nursing and maternity homes would come into force throughout the Union on April 1, 1921. By nursing and maternity homes is meant any premises where nursing is carried on for gain, not being an institution owned by the government or a Provincial Administration, a local or hospital board, or other public body. Any person conducting such a home must register it, and transmit to the Secretary for Public Health a duly completed application, the particulars of which will be registered by the Department of Health at Pretoria. The Minister may at any time authorize an inspection of these homes, a report of which must be made to the Secretary for Public Health. All records and information desired by the inspecting medical officer must be furnished to him by the home. A complete record shall be kept of all patients treated in the home, and a report of work done during the year shall be furnished to the Secretary for Public Health every year, not later than January 31.

These regulations are exactly what the Trained Nurses' Association has been urging for years. They will insure that homes are decently run, and will no doubt be of great benefit to those homes which are above suspicion, and will put out of the running many which are not.

IS NURSING REALLY LESS ALLURING?

"Many young women are choosing paths of lesser resistance and entering other fields that seem immediately more alluring. I am told that service in a hospital is no longer as attractive to them as formerly, possibly for a reason not unrelated to the emancipation and aspiration of modern womanhood. For not only does the nurse desire to develop herself professionally, but also individually, and, when off duty, to create for herself an environment and an atmosphere that perhaps are not regarded, in the unrest and yearning that are a phenomenon of the day, as adequately realizable under the residential limitation and disciplinary regulations of institutional life. 'The fault is not in our stars, but in ourselves, that we are underlings,' they seem to say."—*1920 Superintendent's Report, Butler Hospital, Providence, R. I.*

HONOR FOUNDER OF THE LIGHTHOUSE

Miss Winifred Holt, founder of The Lighthouse, an educational center for the blind, has been presented with a gold medal in recognition of her work among the blind of Italy during the war. The presentation was made in behalf of King Victor of Italy.

BETTER SCHOOLS AND BETTER TEACHERS, KEYNOTE OF NURSES' CONVENTION

By BLANCHE PFEFFERKORN, Assistant Professor, School of Nursing and Health, University of Cincinnati, Cincinnati, Ohio

THE twenty-seventh annual meeting of the National League of Nursing Education was held in Kansas City, beginning on Monday morning, April 11, and closing Thursday, April 14. While the final business meeting occurred Thursday evening, the convention actually continued throughout Friday until six o'clock, for on Friday were discussed such important subjects as "Legislation and Inspection of Schools of Nursing," and "University Schools of Nursing." Practically everyone who came to Kansas City remained for the Friday sessions.

It would be exceedingly difficult to write a detailed report of the convention, because of the great crowding in of impressions, and the speed with which one session followed upon another, and the many topics presented. One fact, however, from early Monday morning till late Friday afternoon was so apparent, that no crowding and no speeding could lessen the force of its presence. The women who had assembled in Kansas City had come together to give and take, to the end that nursing education might be broadened and enriched. Among those present were many of the foremost nurse educators of the country, some of whom for years had given generously of their fine wisdom and rich experience. A second group was also evident, the younger members of our growing body of nurse educators. The enthusiasm of these younger members was one of the most encouraging notes of the session. Perhaps never in its history has the purpose of the League been more manifest than at this twenty-seventh meeting.

Probably one of the points most emphasized throughout the convention was the urgency of establishing in all schools of nursing sound educational policies. The world is moving onward. Emphasizing health and community fitness, it is asking of no profession to keep pace with its progress in a greater measure than it is of nurses. As pointed out by Miss Anna C. Jammé, the president, the nurse of the present and of the future must have an understanding of social problems; she must be an organizer, a teacher, an administrator, a leader, and an educator. Professor Charles Elwood of the University of Missouri, in his address "Training for Leadership," at the Tuesday evening meeting, declared that nurses made the best community leaders, and emphasized the expediency of preparing nurses for this capacity. If the nurse is to reach her fullest development and give the public that for which it is asking, the public must in its turn, give that assistance which will make schools of nursing, schools in the same sense as other schools.

Concretely, what are those things which nurse educators are asking in order that nursing schools may be really schools? This question was very ably treated in two papers read at the Tuesday evening meeting, one by Mrs. Ethel Clarke of the Indiana University School of Nursing, and the other by Miss Isabel Stewart of Teachers' College, Columbia University. Following are the points which were stressed: 1. Need of independent financial support for schools of nursing. 2. Lack of understanding on the part of the public and the medical profession of nursing needs; the public must be more informed and better informed of the fundamentals of nursing education, and the requisites of nursing schools. It must learn to distinguish between a hospital as a place for caring for the sick, and as a place, constituting, complete and in itself, a school of nursing. 3. A sounder curriculum; (much has been accomplished in this direction since the publishing of the standard curriculum by the education committee of the League). 4. Adequate class-rooms, laboratories, and libraries. 5. Need of larger numbers of well qualified teachers in schools of nursing. 6. Increased relationships between schools of nursing and universities.

Apropos of the sixth item, it would seem fitting to note here the relationship of the schools of nursing in Kansas City to its Junior College. While not officially placed on the program, it would be safe to say that everyone who attended the convention was eager to learn the details of the Junior College and School of Nursing coordination. A large number visited the college to inspect its classrooms and its laboratories. The writer interviewed Miss Helen Farnsworth, the nurse through whose efforts the arrangement has been largely effected, and obtained the following information:

Junior College is under the management of the board of education of Kansas City; it also receives a subsidy from the state. Its curriculum parallels the first two years of the Missouri State University.

In 1919, Miss Farnsworth, supported by the Kansas City League of Nursing Education, approached the board of education with reference to the teaching of student nurses those subjects included in the preliminary course of nursing. The authorities agreed to take over this responsibility and to follow the outlines prescribed for the preliminary period in the standard curriculum. The course of instruction covers three hours a day, five days a week, for a period of five weeks. The instructors concerned in the teaching of student nurses are paid on the basis of night school teachers, and in addition, their salaries are supplemented by the schools of nursing. The only other expense incurred by those schools within the city limits is a laboratory fee of $2.50 per student. Schools outside the city are taxed $5.00 tuition fee per student. At the present time eight nursing schools within Kansas City and two outside the city, are sending their preliminary students to Junior College. An average of thirty-five students each semester has attended the course.

While the main note struck at the convention was "real schools and better schools," its echo sounded back, "more teachers and better teachers." Opinion seemed unanimous that progress in schools of nursing, as in other schools, would in a large measure, be controlled by the development of their teachers. A number of round tables and one morning session were completely given over to the question of teaching. While much of the discussion centered around the technical aspects of teaching, the striking quality of these meetings, on the part of the teachers present, was the desire "to know," to have a rich knowledge of subject matter, and the ways and means by which such knowledge might be acquired. The sound of educational gatherings was in the air, several institutes were reported to have been held during the last several years, and a brief statement was made of one to take

place next summer in Ohio. The fact was cited that anyone could take regular college courses, either graduate or under-graduate, through the correspondence department of the University of Chicago, which courses are in every way the equivalent of regular courses taken in residence, and are given equal credit for a Bachelor's or Master's or whatever degree is being sought. This makes available courses in biology, chemistry, bacteriology, English, etc., for those instructors who, on account of short vacations, cannot be in residence for a full university session.

It is evident from the several preceding paragraphs that the teaching body of the convention was a live, active group, enthusiastic over what had already been accomplished, and eagerly looking toward greater things in the future. The direct outcome of the teachers' session was the formation of an instructor's section of the National League of Nursing Education, the declared purpose of which is a closer relationship among instructors, and the creating of a greater interest, particularly in young graduates, in teaching. Miss Nellie G. Browne, instructor at the Indiana University School of Nursing, was elected chairman of the section.

A report of the teaching program would be incomplete without a word concerning the paper written by Professor Albert T. Mathews of the College of Medicine of the University of Cincinnati, and presented at the Thursday morning meeting. This paper, entitled "After Twenty Years of Teaching," will be published shortly in the department of nursing education of the *American Journal of Nursing*. Let those who halt by the wayside and find the road of teaching steep and hard and rocky, read this paper; they will go on. For those who find joy in teaching, it is a song, the song each would sing over all the earth.

There were a number of round tables upon the special educational features of the public health nurse. On account of overlapping of sessions, the writer could not be present at these meetings, hence the impossibility of a statement of their results. A very excellent paper was read by Miss Edna L. Foley at the Tuesday evening meeting, on "Public Health Nurses." Miss Foley asked for "more nurses, better prepared nurses, fewer patients, and a better educated public."

As a very delightful surprise, Mrs. Helen Hoy Greeley appeared at the banquet Wednesday evening. Mrs. Greeley, who has been acting as council for the Missouri nurses, gave some of the details of the revised bill relating to schools of nursing in Missouri. At that time the bill had passed both houses of the legislature and awaited the governor's signature. Would the governor sign? During the days of the convention this question was heard again and again. The nurses visiting the state, as well as those resident therein, seemed equally concerned and anxious. Late Friday afternoon came the word that the governor had signed.

Not the least of the welcome features of the convention were those messages brought by Miss Clara D. Noyes, in a paper on "The New Interest in Nursing Education in Some Other Countries." Miss Noyes told of the schools of nursing which are being established by the American Red Cross, and the great need for modern nursing all over Europe. At another time Miss Noyes spoke of the splendid courage, the great endurance, and the ever present desire to do, of the American Red Cross nurse, no matter how difficult the situation, or how hopeless its outcome might seem. Is it not a fine thing to be a nurse? Her possessions are jewels of rare value, a great heritage, a present rich in service, and a future full of promise.

The officers of the National League of Nursing Education for the coming year are: president, Anna C. Jammé, R.N., State Board of Health, Sacramento, Cal.; first vice-president, Laura R. Logan, R.N., University of Cincinnati, Cincinnati, Ohio; second vice-president, Carrie M. Hall, R.N., Boston, Mass.; secretary, Martha M. Russell, R.N., University Hospital, Boulder, Colo.; treasurer, Bena M. Henderson, R.N., Children's Memorial Hospital, Chicago, Ill.

The directors are: Mary C. Wheeler, R.N., Chicago, Ill.; Annie W. Goodrich, R.N., New York, N. Y.; Amy M. Hillard, R.N., Troy, N. Y.; Effie J. Taylor, R.N., Baltimore, Md.; S. Lillian Clayton, R.N., Philadelphia, Pa.; Ethel P. Clarke, Indiana University, Indianapolis, Ind.; Mary C. McKenna, R.N., Columbia, S. C.; and Isabel M. Stewart, R.N., New York, N. Y.

INDUSTRIAL NURSES CLUB

Through the efforts of Miss Margery Lewis, a graduate of Presbyterian Hospital, the Industrial Nurses Club was organized in New York City, November, 1920. The organization was completed in February, 1921, when officers were elected and a constitution and by-laws adopted.

The following officers were elected to serve until the next annual meeting, May, 1922: president, Mrs. Frederick J. Brockway, Metropolitan Life Insurance Company, 1 Madison Avenue, New York City; vice-president, Miss Elizabeth Burns, Ladlew Tannery, Newark, N. J.; secretary, Miss Margery Lewis, C. Kenyon Company, Brooklyn, N. Y.; treasurer, Miss Mary Elderkin, Union Carbide and Carbon Corporation, 30 East Forty-second Street, New York City.

The club was organized for the purpose of stimulating interest in the special problems of the industrial nurse, and of providing a forum for the discussion of such problems. It meets the second Thursday of each month, from October to May, inclusive; dues are two dollars a year; and the active membership is limited to graduate, registered nurses, actively engaged in industry in Greater New York or vicinity. It is a live club, with already about seventy members.

For membership blanks and information apply to: (Miss) Margery Lewis, R.N., Secretary, 1919 Seventh Avenue, New York City.

STEEL CORPORATION ENDORSES HOSPITAL

Officers of the Reconstruction Hospital for the Rehabilitation of Industrial Casualties announced that the Carnegie Steel Corporation is the first large industrial corporation to pledge its support. The chief surgeon of the corporation, Dr. William O'Neill Sherman, telegraphed to the hospital authorities saying that the economic and humanitarian value of the hospital were easy to see, and that there would surely be in time one of these institutions in every large city of the country.

RESIGNS TO TAKE SECRETARYSHIP

Dr. William E. Musgrave has resigned as director of hospitals, University of California Medical Schools and Hospitals, San Francisco, Cal., and has become secretary of the Medical Society of the State of California, with headquarters in the Butler Building, San Francisco, Cal.

Drop the cant and treat sickness sanely. In dealing with the drunken we do not affect to be drunk. We must treat the sick with the same firmness, giving them, of course, every aid,—but withholding ourselves.—Emerson.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

ATTACKING THE FOOD PROBLEM FROM THE RED CROSS HEALTH CENTER*

BY E. A. PETERSON, M.D., DIRECTOR, DEPARTMENT OF HEALTH SERVICE, AMERICAN RED CROSS, WASHINGTON, D. C.

SOME three score years ago, Napoleon made the statement that armies traveled on their stomachs. Later one of our great American war heroes, Admiral Dewey, stated that it was his opinion that one-third of what we ate kept us, and the other two-thirds kept the doctors; and now comes along a real expert in the health field, particularly in the food field, and tells us that he can actually determine the length of life of certain groups of animals by feeding them in different ways.

Those statements, along with the results of recent laboratory and feeding experiments, have sensitized health workers to the importance of this question of food.

So when the American Red Cross formulated its peace time health program, nutrition work was given a prominent place, and in setting up plans for health centers there was included a plan to at least begin education in the importance of proper food in each community.

May I interject here the statement that the Red Cross does not aim to cover the health field? It mapped out its health program with due regard to the important agencies now operating there; namely, the doctor, the health officer, the educator, and the private health agency, and to the importance of fitting the activity to the organization.

The American Red Cross, at the close of the war consisted of some twenty million members grouped together into chapters and branches to the number of over fifteen thousand, and scattered over the entire United States. Every community had its Red Cross organization. Every community had developed a group of workers who had become interested in work other than their own special vocation. All had become interested in "the other fellow." All had found that there was time in which to do some of this volunteer work.

Much of this work related to the health of communities, so a definite interest in health work was created.

Needed Health Work

The great need in the health field seemed to be the education of people in personal hygiene, and in the importance of strengthening and properly using the health agencies now existing.

Enough knowledge of how to live existed in the minds of health experts to "increase the average length of life fourteen years in one generation," if that knowledge was lived up to by people generally. To "get that knowledge across" and then to base health habits upon it was the next important health work.

The health center is an ideal facility for this kind of work and especially fitted to the American Red Cross because it is a community project, and the American Red Cross is in close touch with thousands of communities. Then, too, its millions of members are somewhat in tune with the health work, and want to continue it.

The health center, among other things, aims to keep the community in as close contact as possible with all national organizations which are promoting health. It does this by presenting in attractive form the publications of these organizations and devising social means of getting these publications in the hands of those who need them.

Many of these organizations, realizing the importance of proper food, have prepared, under the guidance of experts, some excellent pamphlets, these of course will be dispensed from the health center.

There is a more definite and more powerful contribution along this line that I believe the health center can make. There are in probably every community numbers of children who are undernourished, some on account of some debilitative disease or unhygienic habits, but many more because of improper food. I know that it is possible to bring this last group up to normal weight, better health, and more efficient living by properly feeding them.

Demonstration Good Method

Here is a dramatic method of bringing to a community the importance of proper food. I believe there are in most communities persons who can, under the direction of experts in our division offices, prepare this food and see that a selected group of undernourished children gets it, to the great advantage of the children themselves, and to the advantage of the community as a whole. Of course, there is a technic which must be followed if such a demonstration is to make a real contribution, but that technic is rather simple. It can easily be comprehended and followed by any intelligent woman. The Red Cross hopes through its health centers to interest some of its chapters in making demonstrations of the proper feeding of children.

You will understand, of course, that these demonstra-

*Read at the annual meeting of the American Dietetic Association, New York City, October 25-27, 1920.

tions are to the scientific nutritional clinics as set up in some of our larger cities, as are country doctors to our highly trained specialists; but, as the country doctors, they have their place. Wherever it is possible to install the more elaborate project, that is installed, but it certainly is not wise to wait until our rural chapters (80 per cent of the American Red Cross) can afford them, to do something along this line. Two great values will come from this work, namely, the excellent results as indicated by increased weight and greater vitality in the children themselves, and the education of the local people who conduct the experiment.

I believe it will prepare the way for more elaborate demonstrations along the same line, and eventually, bring about the establishment of definite, continued, and trained oversight in this work.

I believe, too, that enough supervision can be exerted from our division headquarters to insure a proper technic and, in many instances, to enlist the aid and direction of local experts, such as home demonstration agent or domestic science teacher.

Under this plan thousands of communities may be stimulated to think and act more sanely in the matter of feeding not only children but adults, whereas, if we waited for the paid expert, it would mean that these thousands of communities would suffer for many years.

The Health Service Department of the American Red Cross seeks your cooperation in rendering this great service.

DIETETIC TREATMENT OF DISEASES OF METABOLISM AMONG OUT-PATIENT POOR*

By MAX KAHN, M.A., M.D., Ph.D., Attending Physician, Diseases of Metabolism, and Director of Laboratories, Beth Israel Hospital; Associate in Biological Chemistry, College of Physicians and Surgeons, Columbia University, New York City

THERE are a number of problems that present themselves in the care of the poor patients suffering from some disturbance in metabolism. They are chronic patients and they tax the endurance and generosity of the physician, the dietitian, and the social welfare worker. They are old people, or elderly people, usually, and the professional welfare worker feels rather disinclined to exert herself indefinitely for their sake. The question that I shall endeavor to discuss borders on the domains of social charity, dietetics, and medicine. I may, therefore, have to diverge from the caloric value of food and a well balanced diet in this paper.

There is a tendency on the part of the welfare worker to react with little interest in the case of a chronically ill, elderly patient. It is true that from an economic point of view it is poor business to invest money in the care of such sick. They never become productive members of society. They will, most likely, always remain a burden upon the charity organization. Why bother with them, when there are acutely ill patients, young and robust, who can be helped for a little while and who then become self-supporting? The injustice of such a tendency is great and self-apparent, and yet it is ever present.

These patients are derelicts on the road of misery and poverty. They are veterans of the battles of life who have lived industriously until age and disease have made them dependent upon our charity—so often wanting in us. To neglect them is to show a sense of utter lack of social responsibility. It is as if a people were to neglect cripped war veterans who have sacrificed their all for the safety of their countrymen. Such a condition of affairs is intolerable and should be remedied.

Should Be Special Budget for This Work

How can one treat an old diabetic patient, who not only has not the wherewithal to purchase the special food necessary, but has not the very bare means of subsistence? To what purpose is it to give advice as to diet and medication, when the patient does not know where to get his next meal? Suppose this patient is referred to the social service department. After due investigation, he is helped for several weeks, and then the help stops, for there seems to be no end to the assistance to be extended.

I have proposed that a certain budget be assigned to the social welfare department to be used by the dietitian at her discretion. Then when such cases do appear in the clinic, the physician, the dietitian, and the social worker will not feel so helpless.

The dietetic treatment of the poor must be especially circumspect. It is my lot to attend to a clinic serving the very poorest of the poor. In advising a diet for them, the physician must have the following facts clearly before him: (1) The economic status of the patient. (2) The foods that can be most economically purchased. (3) Instruction of the patient by the dietitian in the preparation of foods. (4) Continued and repeated examination of the patient, his state of acidosis or sugar tolerance in diabetes; his degree of edema and nitrogen retention in nephritis, etc. (5) Investigation of the home life of the patient.

The economic and financial condition of the patient must be known. Those dependent on the support of their relatives must be urged to follow implicitly the directions given to them. It is advisable, occasionally, to speak to the relatives who are supporting the patient and impress them with the desirability of following the dietetic regulation, and with the health penalty that will follow disobedience. Amongst the poor, especially the Jewish poor, the family ties, and the family affections are very strong, and these words of caution will help very much.

Must Make Financial Arrangements

When the financial status of the patient is such that he or she must become a burden upon charity, we must see to it that organized welfare work accomplishes its duty. The arrangements must be made with "the butcher, the baker, and the candle stick maker," to have the necessary food ingredients supplied to the patient. One point must be remembered, and I was taught this by a social service worker, that more than the necessary provision must be given to the patient if she be a mother, for otherwise, the mother will share with her children and will

*Read at the annual meeting of the American Dietetic Association, New York City, Oct. 25-27, 1920.

herself abstain from the food in order to see that her children have enough.

If something suitable can be found for the patient to work at and help in earning his subsistence, well and good. If not, it is the duty of the state or of the welfare department to see to it that proper support be extended to the ailing individual.

The dietitian must see to it that in carrying out instructions of the metabolist so far as food ingredients goes, only such vegetables and other foods are recommended as are in season and can be obtained easily and cheaply. In this regard, the dietitian serves her main function. And not only this, she is to visit the home of the sick, or have classes in the hospital to which the sick can come and be shown how to cook the vegetables and other food properly and palatably.

Religious Factors Important

There are many religious factors in the preparation of a diet. I am especially able to discuss the diet question from the orthodox Jewish viewpoint. You know, for example, that Catholics refuse to eat meat during the Lent season. The Jews also have certain religious regulations in the foods that are allowed to them. The more miserable and poor a person is the more there is implanted in him all superstitious and religious observances. He seeks his consolation in the church, the synagogue, or in the various medical cults. At that time, one cannot teach the patient science or logic. One has to recognize these prejudices as one recognizes varying tastes, and cater to them. To ignore these scruples, or belittle them, is to work harm to the patient and arouse animosity toward the dietitian.

On a part, which I will quote, of Chapter XIV of Deuteronomy in the Old Testament, many of the dietetic laws are founded:

"Thou shalt not eat any abominable thing."

"These are the beasts which ye may eat: The ox, the sheep, and the goat."

"The hart, and the roebuck, and the fallow deer and the chamois, and the gazelle, and the wild ox, and the antelope."

"And every beast that hath parted hoofs, and whose feet are cleft into two claws, and cheweth the cud among the beasts—that alone may ye eat."

"Nevertheless, these shall ye not eat of those that chew the cud, and of those that possess the divided cloven hoof: The camel, and the hare, and the coney; for they chew the cud, but divide not the hoof; unclean are they unto you."

"And the swine, because it divideth the hoof, yet cheweth not the cud, it is unclean unto you; of their flesh shall ye not eat, and their dead carcasses shall ye not touch."

"This may ye eat of all that is in the waters: All that hath fins and scales may ye eat;"

"And whatsoever hath not fins and scales shall ye not eat; it is unclean unto you."

"Every clean bird may you eat,"

"But these are they which you shall not eat of them: The eagle, the ossifrage, and the osprey,"

"And the glede, and the kite, and the vulture after his kind,"

"And every raven after his kind,"

"And the ostrich, and the night-hawk, and the cuckoo, and the hawk after his kind,"

"The little owl, and the great owl, and the swan,"

"And the pelican, and the gier-eagle, and the cormorant,"

"And the stork, and the heron after his kind, and the lapwing, and the bat."

"And every winged insect is unclean unto you: it shall not be eaten."

"All clean fowls may ye eat."

"Ye shall not eat anything that dieth of itself; unto the stranger that is in thy gates canst thou give it, that he may eat it; or thou mayest sell it unto an alien; for thou art a holy people unto the Lord thy God; thou shalt not seethe a kid in its mother's milk."

Upon the last injunction has been raised a whole system of dietetic ritual. You must remember that there are nearly four million Jews in America. In the centers where population is densest (in New York, Chicago, Pittsburgh, Boston, Philadelphia, Detroit, etc.) and where poverty holds its sway, these religious questions are very important. The rabbis have explained the injunction of not boiling the kid in its mother's milk, that meat and milk things must be kept separate. One cannot eat butter with meat nor with fowl. Nor can one use an implement that had touched milk or its products to serve in the eating of meat or its products.

There is a crying need for dietitians who understand the Jewish ritual. It is not essential that they be of the Jewish faith, as long as they are cognizant of the Jewish prejudices. This is especially the case with visiting dietitians and with those who are to become connected with orthodox Jewish hospitals, in contradistinction to the reformed Jewish hospitals.

In the advice given to diabetics, one must remember that while it is desirable to keep the patient sugar free, it is especially essential to keep his H ion concentration, his acidosis, normal. This can only be done by limiting the fat intake. For while the diabetic individual is characterized by a disturbance in the metabolism of carbohydrates, he is also, due to this fact, suffering from an improper breakdown of his body fats with the resulting formation of acetone substances, which are so toxic. The patients must be, therefore, cautioned against the indiscriminate use of fats.

DR. EMERSON APPOINTED MEDICAL ADVISOR OF BUREAU OF WAR RISK INSURANCE

Dr. Haven Emerson, formerly commissioner of health of New York City, has been appointed to the position of Medical Advisor and Assistant Director of the Bureau of War Risk Insurance. Dr. Emerson is well equipped to serve in this new capacity. For a number of years he was instructor and demonstrator in the departments of physiology and medicine at the College of Physicians and Surgeons of Columbia University, and assistant attending physician at Bellevue Hospital, at the same time practicing general medicine.

Dr. Emerson's contacts with the problems of preventive medicine and public health were established through his membership on the New York Health Committee, the Public Health Committee of New York Academy of Medicine, and in the New York Tuberculosis Association. In 1914 he was appointed sanitary superintendent and deputy commissioner of health of New York City, and from 1915 to 1917 he was commissioner of health.

During the war Dr. Emerson served with the American Expeditionary Force. In 1920 he organized the Department of Hygiene and Preventive Medicine at Cornell University, and directed the Hospital and Health Survey of Cleveland, Ohio, for the Cleveland Hospital Council. He returned recently from Europe, where he had been sent as a delegate from the National Tuberculosis Association to the International Conference on Tuberculosis.

The *Medical Press* calls attention to the importance of exercise in maintaining health. It also reminds us that, whereas in a state of nature the struggle for existence necessitated a great deal of activity, the struggle for existence in the civilized state tends to make man forget exercise to an alarming degree.

DEPARTMENT OF PUBLIC WELFARE RESUMES ITS WORK IN DIETETICS

By M. SMITH, Department of Public Welfare, New York City

IN AN effort to amplify and extend the work of the dietetic bureau of the Department of Public Welfare of New York City, Commissioner Bird S. Coler has instituted a bureau of nutrition, and appointed as departmental dietitian, Miss Elva A. George. Hitherto the food bureau of the Department of Public Welfare covered the work of making institutional menus, food requisitions, census records, condemnation records, computations for food contracts, etc. It was administered by a clerk in charge and four assistant clerks. The dietitians in the hospitals were under the supervision of the superintendents of the hospitals and nurses' homes. While most of these were trained household economics women, in a number of instances attendant nurses and housekeepers were under salary as dietitians and were known as dietitians in the institutions. Only two were certified by the civil service commission.

Recreate Bureau of Nutrition

With the appointment of a departmental dietitian, the new administration departs somewhat from the older régime, in that there has been recreated a bureau of nutrition, as was originally designed. There have been eliminated certain features of its practices having no relation to its purpose, such as originating food requisitions, menus, condemnation records, contracts, calculations, etc. The commissioner has, under the administration of a departmental dietitian, added large responsibilities which properly belong within the scope of its duties.

There is no city in this country and probably none in the world that has so huge and unwieldy a group of public institutions under its wing as the New York City Department of Public Welfare. When it is appreciated that the department embraces ten great institutions, for the greater part of the time filled to capacity with the sick, the poor, and the unfortunate children of the metropolis, and that daily each of these populated hospitals and child caring institutions must be fed three times, something of the dimensions of the task may be approximated. And, in addition to the regular routine work of feeding the great institutions, with its many ramifications, there is the additional experimental and extensive program that is being gradually put into effect under the capable leadership of Miss George, with the cooperation and advice of Dr. John P. FitzGerald, medical superintendent. Always in the exercise of judgment on medical nutrition the bureau cooperates with Dr. FitzGerald's bureau and, in the promulgation of any advanced and untried methods, Commissioner Coler is brought into consultation. The local institutional dietitians are encouraged at all times to obtain the judgment of the physician immediately in charge of the patient, as to the dietetic requirements. It has been discovered that neither the wishes of the patient nor the discretion of the attendant nurse in the matter of a selection of diet is to be relied upon solely, and therefore the more scientific and experienced mandate of the attending physician in the case is requested.

The departmental dietitian's duties are manifold and her responsibilities commensurate with the immense amount of detail, general executive, inspectional, and educational work that is carried on under her direction. Fresh from a similar capacity with the American Red Cross stationed in Washington, D. C., Miss George brings to the department work, qualifications that will render the most intelligent and expert service to the Department of Public Welfare. In general, she supervises the character of dietary, the cooking and serving of foods, and the elimination of waste in all institutions of the department. It is also her task to determine that the varieties, quality, and amounts of foods purchased are in accordance with the specifications and the standard requirements. It is her task to inspect the care and storage of foodstuffs. It comes in her domain to pass upon kitchen plans and equipment. Lastly, under the title of general work, come the periodical consultations with superintendents of training schools on the course in dietetics for student nurses of the department.

Under the classification of executive duties, the department dietitian is in charge of the personnel of the bureau of nutrition and responsible to the commissioner, and must confer with the general medical superintendent on dietaries and personnel; also with the purchasing agent on food qualities, prices, and deliveries; with the auditor on condition of funds, and with the heads of institutions. Where it is necessary to revise requisitions and menus of the different institutions, this is done, as well as to keep informed on sources for obtaining dietitians, and kitchen and dining room help. When desirable, the departmental dietitian also calls meetings of institutional dietitians or confers with them when visiting the institutions.

Once a month it is the duty of the departmental dietitian to visit and inspect each of the ten institutions directly under her surveillance. In this tour of inspection she covers the dining rooms, kitchens, bakeries, and storerooms of the department in order to keep informed of the quality, quantity, storage conditions, preparations, serving, and conservation of food supplies. The dietitian's survey of these rooms takes in also the sanitary conditions and the equipment in use, the condition of repair in which floors, walls, windows, equipment, etc., are kept. A report to the head of the institution or to the commissioner is the sequel of this mission.

Educational Work Also Her Province

A wholly different phase of work which is in the dietitian's province is that labeled "educational," which, though not engaging as much of her time as the other, is basically one of the most important functions of her position, for it is upon this educational work that the whole fabric of thorough and intelligent cooperation between the departmental dietitian and the dietitians in the various institutions is founded. By reason of her years of experience in the proper preparation, cooking, and serving of food, Miss George is able to pass on to the women immediately under her the knowledge she has acquired in this field of endeavor. Therefore, all dietitians and cooks of the department are instructed by Miss George in this art, thereby insuring the most efficacious and efficient service to the department. Institutional dietitians are trained in household economics before appointment, pupil dietitians are entered in institutions for a term of

practice, with a certificate of experience granted at the end of six months of satisfactory service.

Coincident with the recreation of the dietetic bureau there has been launched within the ranks of the department's dietetic personnel, a movement to modernize so far as possible standards and equipment for the various institutions. There have been proposed since July of 1920, labor-saving devices in kitchens and serving rooms; modern and increased equipment, mixing machines, dishwashers, steam counter, food conveyors, sanitary round tables for small groups of inmates and patients, etc. Also has gone into effect the originating of all menus and requisitions in institutions with check and record at the central office, and the standardization of cutting and distribution of meat in institution butcher shops.

Appoint Welfare Dietitian for Hospitals

Perhaps the most forward looking and human experiment now being tried out by the bureau has to do with the little institutional children, and the inmates of the homes for the aged and infirm. In the not far distant past the feeding of these folk was a routine job, it was merely a question of getting the food to the inmates, regardless of the manner in which it was served or received. Often, under this old system, the kitchen and dining room helpers did little to make the meal a pleasant occasion for the institutional charges. To many it was a mechanical task which had to be performed three times a day, and the inmates could take it or leave it, there was little sympathy expended. But, with the selection of a welfare dietitian for tuberculous and children's hospitals and for the homes of the aged and infirm, this situation has changed. It is now the duty of this especially appointed welfare worker to see that a proper sympathetic attitude exists between the patient and the members of the kitchen and dining room forces, on the cooking and serving of food. In a sense, the inmate becomes in fact an individual to be treated with as much sympathy and understanding as though he or she were not dependent on the city's charity. Also, it is the duty of the dietitian to provide intelligent and constructive criticism from the dining room to the administrative dietitian's office, with the end that the program in mind may be carried out effectively and without hitch.

Along with other innovations in the dietary department has come a movement to secure an increase in salary for the institutional dietitian, her value to the department being more fully appreciated than ever before. It is hoped that salaries for this position will be placed in the $1,500 competitive class. Lastly, a modification of institution standard dietaries and the basic quantity food tables is under consideration by the city authorities.

It is becoming more and more important to place the dietary work of the city institutions in the hands of the trained dietitian and to recognize her very important function in the community.

TO REBUILD OLD HOSPITAL

The interesting announcement comes from Philadelphia that the managers of the Pennsylvania Hospital, which was founded in 1751, and which is the oldest voluntary hospital in the United States, are considering the question of rebuilding the institution, preserving, however, features of the present hospital which are of historic interest and value. Dr. S. S. Goldwater, of New York, has been engaged to act in an advisory capacity to the board of managers in this connection, and Dr. Daniel D. Test, superintendent of Pennsylvania Hospital, will be associated with him in the work.

NEWS ITEMS

Miss Elna Becker, formerly at the Pennsylvania Hotel, New York, is now with the Crane Candy Company of Cleveland.

Miss Mabel Dunham is director of a tea room and food shop which has been recently established by the Woman's Club, of Rockford, Ill.

Miss E. M. Geraghty was a patient at Presbyterian Hospital, Chicago, for several days, where she submitted to a minor operation.

On March 14, the Philadelphia League of Nursing Education invited the dietitians section to join them in a round table discussion on teaching dietetics.

Miss Hattie Brooks has finished the course in student dietitian training at Johns Hopkins Hospital, and has been given the appointment of assistant dietitian with Mrs. O'Dea.

Miss Bertha Hyde has been granted a leave of absence from Cincinnati General Hospital for six months because of ill health. Margaret Russell is carrying on the work of the department during Miss Hyde's absence.

Miss Mary Cunningham has given up the work at the Youngstown Hospital and accepted a position as dietitian at the Hanover Hospital, Milwaukee. Miss Lulu Winans, who has been at St. Luke's Hospital in Chicago, succeeds Miss Cunningham at Youngstown.

Miss Meta Reese has returned to the Methodist Hospital of Philadelphia, after several months' leave of absence. Miss Katherine Williams substituted for her during her absence. Miss Williams has accepted a position as dietitian of the Jewish Hospital in Philadelphia.

Miss Maude Perry has been critically ill for several weeks at the Montreal General Hospital. She will probably not be able to resume her duties as head dietitian at that hospital for some time. During her absence, her assistant, Mildred Haines, is in charge of the department.

Miss Ruth Bigelow, dietitian of the Abington Memorial Hospital, Abington, Pa., has resigned to take charge of the dietetic department of the Danville Hospital, Danville, Pa. Miss Ellen Horton, of the Delaware Hospital, Wilmington, Del., will replace Miss Bigelow at Abington Hospital.

The regular monthly meeting of the dietitians section of the Home Economics Association of Philadelphia was held February 24, at the Pennsylvania Hospital, Eighth and Spruce Streets. It was a "get acquainted" meeting. Tea was served, followed by a round table discussion of the dietitian's problems.

ALBANY MEDICAL COLLEGE HAS POST-GRADUATE COURSE

The Albany Medical College is carrying on a continuation of its postgraduate course in infectious diseases and public health for practicing physicians and public health officers. The course is given jointly by the College and the New York State Department of Health, and registration is limited to graduates. Informal conferences and practical demonstrations are given, with special consideration of the diagnosis and treatment of pneumonia and tuberculosis. The organization and work of industrial medical departments is also considered. Special work in venereal diseases is arranged for classes of two. The course extends from March 3 to June 17, one day a week.

Extensive additions are planned by the State of Illinois for the Alton State Hospital, at Alton. The estimated cost is $500,000.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

By CHARLES L. HAYS, Chicago, Ill.

IN CHICAGO, business recovery is slow, but is going ahead smoothly and with few outward signs of distress. In the face of continued tightness of money and curtailment of industrial activity, it is paradoxically true that retail business for the first three months of the year compared very favorably with the first quarter of 1920, even when reckoned in dollars, notwithstanding the reduction in prices. Road sales and mail orders of wholesalers are in excess of those at the corresponding time last year, but merchants are still buying in small quantities and frequently, avoiding distant commitments. The number of idle freight cars on the railroads has increased in the last month, and is now the highest ever recorded. Steel and iron production has been reduced to between 25 and 50 per cent of capacity, and in other lines of manufacture, except textiles, evidence of a revival of activity is lacking. Bank deposits are lower, principally because of the decrease in the prices of commodities, but loans hold up stubbornly. Money rates are unchanged, except for a slight shading of commercial, which is 7.5 to 8 per cent, against a minimum of 8 per cent a month ago.

Unemployment Increased

Unemployment has increased, and this is being reflected for the first time in a reduction of savings deposits, the trend being now definitely downward, after six years of steady and rapid increase. The loss so far is slight, and its chief significance is in marking the passing of the crest of the wave of accumulations of workers. The latest figures from the Federal employment service, giving reports from 1,423 firms usually employing 500 or more each, and located in sixty-five industrial centers of the country, show a decrease of 16,295 in the number employed on March 1 as compared with a month previous. The principal decreases are in these industries: iron and steel, railroad repair shops, chemicals and allied products, liquors and beverages, paper and printing, and food products.

Building conditions are not favorable to a revival of activity on a large scale, principally because of the labor situation. The unions are resisting efforts to bring about a modification of wage schedules, and unless these trades undergo a change of mind before the time for contract renewals on May 1, their attitude will continue to be, as it has been for the last year, the chief obstacle to a resumption of construction work in anything like the extent which the acute housing shortage demands. Steel prices have been reduced about 25 per cent, brick have been cut from $16.00 to $12.00 a thousand, the first reduction in more than a year, and other materials are off moderately. Lumber dealers say their prices have been reduced 30 to 50 per cent from the peak, but architects assert that they are still nearly 100 per cent higher than before the war. A recent estimate of architects placed the reduction in all building costs from the highest point at 16.71 per cent, hardly enough to induce any marked activity.

Food Prices Lower

Food prices have worked steadily lower in the last month. Flour is about $1.00 a barrel lower, butter three cents a pound, eggs eight to ten cents a dozen, and potatoes, at eighty-five cents, are off fifteen to twenty-five cents. Grains have reached the lowest price recorded in six years, but prepared cereals have not followed them to the full extent of the reduction. Sugar, after stiffening to eight and a quarter cents, wholesale, for fine granulated, is a half cent lower because of the financial troubles in Cuba. Meats are a little lower, but in the cities the decline has not been commensurate with the drop in the prices of livestock, and in some lines, notably cured products, the season of greatest demand for which is approaching, prices have even advanced. Canned goods and dried fruits, especially the lower and medium grades, are substantially lower, but the higher quality goods show little change. There are still considerable quantities of canned fruits from last year's pack being carried by owners who are reluctant to sell at the reduced prices, which may further depress values; but there has been a better clean-up of vegetables in anticipation of the new pack, in effecting which dealers have suffered material losses.

Drugs and chemicals have declined further, resale offerings acting as a weight on the market. In many cases manufacturers have been compelled to meet or approach the secondhand figures. Recently, however, there has been a little less of these goods and the markets have been more under the control of producers. Quinine has advanced somewhat among secondhands, and importers and concerns which a while ago were offering goods at sixty-two cents are now asking sixty-eight cents, which is only two cents under the price of domestic manufacturers. Rochelle salts have been reduced two cents to a new bulk price of twenty-seven cents. Seidlitz mixture has been marked down one and a half cents a pound to a range of twenty-one and one-half to twenty-two and one-half cents. Ether is in steady demand, recent reductions in price being due more to cheaper cost of raw materials

than to conditions in the ether market. Grain alcohol is plentiful at $4.80 in five-drum lots. Removal of much cheap formaldehyd from the market has hardened the price to sixteen cents. Hypophosphites are off ten cents a pound on the calcium to seventy cents, and twenty-five cents on the potassium to $1.10. Permanganate of potash is slightly lower at fifty to sixty-two cents.

Furniture Still Remains High

Furniture is still a laggard in the readjustment process and the movement of this kind of merchandise is slow in consequence. Lower steel prices have made possible some modification of quotations on articles in which metal is used, such as beds. The demand for crockery and glassware held up well until the last month or so, which prevented any noteworthy revision of prices, but there are indications of the approach of conditions more favorable to buyers. The department of household furnishings in which there has been the greatest change is that of bedding. Cotton and wool are very low, as compared with recent price levels, and the decline has been followed probably more closely by sheetings, pillow-cases, blankets, and similar staples than by any other class of merchandise.

Demand for paints and varnishes has been strengthened recently by a resumption of operations in many automobile plants, and prices are firmer. The effect of this change is not yet noticeable in the linseed oil market, but it probably will be soon. Oil at sixty cents for raw and sixty-two cents for boiled, warehouse delivery, is seven to nine cents lower than a month ago, due to the weakness in the flaxseed market in the last month.

The change for the better in the automobile industry is one of the most encouraging features of the industrial situation, and, together with a brilliant prospect for large yields of soil crops this year, has done much to offset the discouraging influence of financial stringency, lessened mine and manufacturing activity, shrinking railroad traffic and labor troubles. Winter grains came through the cold season in good shape, and weather conditions this spring have been very favorable for growing plants and for the seeding of a large new acreage.

Coal Prices Show Some Reduction

Coal prices have been reduced fifty cents a ton this month, but the placing of contracts for steam grades and domestic fuel is so slow that leaders in the industry are predicting another squeeze in the late summer or fall, when belated buyers will all be in the market at once. Because of lack of demand, mine production has been reduced to 30 or 40 per cent of normal. Purchasers are deterred by the fact that prices to consumers are very little lower than last year, notwithstanding the reductions at the mines, and distributive costs are just as high. It is not easy to see any likelihood of a change in the situation favorable to buyers, but it is easy to imagine one that may be worse.

Crude rubber prices are about where they were a month ago, at sixteen to nineteen cents, in spite of the improvement in the automobile industry. The trouble with most of the tire companies was that they were carrying heavy rubber inventories, and most of them have much liquidation to do before their needs will affect primary markets.

STANDARDIZATION OF FRUITS AND VEGETABLES FOR A $200,000,000 BUSINESS

By ROBERT BIER, Investigator in Grades and Standards, Bureau of Markets, U. S. Department of Agriculture

HOSPITALS are now buying foodstuffs at the rate of two hundred million dollars annually. A small saving on a business of this magnitude would constitute a tidy sum in itself, and no sound business principle should be neglected in placing the purchasing department upon an economical basis. Progressive business concerns recognize this fact and now buy large quantities of their raw materials upon standard specifications. This practice also should be followed by hospital buyers in the purchase of fresh fruits and vegetables.

The agricultural interests have been slow to adopt standards for marketing their crops. Probably their isolation and individuality have been important factors in preventing such adoption. However, modern means of transportation and communication are bringing farmers closer together, with the result that there has been a marked increase in the number of farmers' cooperative organizations. Associations, especially those handling fruits and vegetables, find that one of their first problems is the formulating of some standard for their products on which they may conduct business. Again the rapid increase in urban population has brought into cultivation lands far removed from the primary markets. Shipments from these sections, if poorly graded, generally return very little to the grower when he has paid the freight, commission, package, and growing charges. These conditions are making it more and more essential that generally accepted standards be adopted which will minimize the large amount of waste now attendant upon shipment of ungraded crops.

Potatoes should be purchased on U. S. grades. The hamper at the left contains No. 2's, the other contains No. 1's.

The Bureau of Markets recognizing the advantages and economies arising from the use of standards for fruits and vegetables, has been conducting studies in all the producing sections as well as in the large receiving mar-

kets, with the object of formulating such measures. Investigations have led to the recommendation of standards for white potatoes, sweet potatoes, northern grown onions and Bermuda onions, while preliminary studies have been made upon many other crops.

The advantage arising from the use of standards in the reduction of waste, and conservation of transportation facilities, was recognized by the United States Food Administration during the war emergency. At this time the Food Administration issued a rule requiring that the United States potato grades be used by licensed dealers. When the regulation was canceled December 10, 1918, the results had been so satisfactory that the grades were continued voluntarily. However, this does not mean that all potatoes that are handled today are graded. In a study made by the inspection service of the Bureau of Markets, of 385 cars of potatoes shipped from New Jersey the past summer, it was found that 206 were below grade specifications for a No. 1 because of the presence of from 6 to 25 per cent of defective stock. Most of these defects were scab and second growth, both of which cause considerable waste in preparation for the table.

Federal inspectors are stationed in twenty-five central markets. They will certify the quality and condition of your purchase at your request.

A hospital, in purchasing such supplies as chemicals or bandages, buys upon definite specifications. If bandages are bought, the quality as well as the dimensions are given, while in case of chemicals the purity of the product is specified. Fruits and vegetables may also be bought upon the basis of definite standards. A United States No. 1 grade requires that potatoes shall be sound, reasonably clean, and practically free from defects such as scab, rot or second growth. The diameter of round potatoes shall not be less than one and seven-eighths inches, while those which are long must be at least one and three-fourths inches. The grade thus gives the buyer about as definite specifications as are applied to the purchase of other supplies.

The hospital buyer will very often find that the market in which he buys foodstuffs does not recognize grades, but this fact should not prevent him from using grades in obtaining his supplies of fruits and vegetables. Such a large organization as the United States Navy buys all these products upon the basis of definite specifications. Furthermore, through inspectors appointed by the Bureau of Markets, the Navy sees to it that such products meet the requirements stated in bids. During the period from September 1, 1919, to June 30, 1920, the Navy, at New York, accepted 8,337,493 pounds and rejected 273,263 pounds, and, in addition, cut 203,493 pounds from the weight because stock was improperly trimmed or in bad condition. If the hospital buyers should apply the same system in making their purchase of foodstuffs, and if the percentage of economy attained was as large, it would mean a saving of ten million dollars annually.

Buyers may raise the objection that they do not have sufficient technical knowledge of the fruits and vegetables they are buying, to apply grades in their purchases. This difficulty may be obviated by calling upon the inspection service of the Bureau of Markets. This service has offices in the twenty-five leading cities of the United States, besides authority to make inspection in 155 others. The inspection, however, is limited to that produce which has passed in interstate trade, and a charge of $4.00 is made if a car lot is involved and $2.50 if the lot is less than a car. These inspectors will advise hospital buyers without charge upon the use of standards or grades of fruits and vegetables in making their purchases. A list of inspection offices operated by the Bureau of Markets may be obtained by applying to the Bureau of Markets, United States Department of Agriculture, at Washington, D. C.

Buying foodstuffs upon the basis of grades as outlined, is the most economical method of making purchases. Copies of these grades may also be obtained from the Bureau of Markets. A business as large and important as that of the hospitals of the United States should be just as alive to the needs of more economical methods in its management as any other modern business, and any measure which will add to the efficiency in operation should merit adoption.

Buy on the U. S. grades and protect yourself from excessive shrinkage.

The Odd Fellows of Bellevue, Pa., are having plans drawn for a $250,000 home.

SECTIONAL LABORATORY FURNITURE

By OSCAR T. SCHULTZ, M.D., Director, Nelson Morris Memorial Institute for Medical Research of the Michael Reese Hospital, Chicago

IN THE remodeling of old laboratories and the planning of new ones, the furniture to be installed is one of the items of greatest expense and constitutes a difficult problem for the laboratory worker. Work tables and other pieces must fit the space available; they must give adequate room to the individual worker and should be so constructed as to afford him the greatest possible degree of convenience and comfort in his work; they should be well made and present a good appearance. In a new laboratory these requirements can be met by having the furniture especially designed to fit the laboratory and to meet the needs of the work to be done. The cost of such specially constructed furniture is very high and adds greatly to the expense of equipping a laboratory. With a limited budget, one is often forced to save on furniture in order to buy apparatus; the result is an installation which is unsatisfactory from the beginning and which becomes more so as time passes.

There are on the market standard pieces of laboratory furniture which are satisfactory for the chemical or biological laboratory. They do not, however, meet the needs of the medical laboratory, more particularly the hospital laboratory, in which different kinds of work must be done. The pieces on the market have been designed primarily for the student laboratory, they are too large for the smaller ones and each piece requires its own plumbing and wiring. The matter of designing a number of pieces of laboratory furniture which would be more suitable to the medical laboratory, whether the work had to do with teaching, research or diagnosis, and which would be so constructed as to make use of the unit or sectional feature, was submitted to the writer. The laboratories of the Nelson Morris Institute, of which Richard E. Schmidt, Garden and Martin were the architects, are equipped with furniture which meets in an ideal

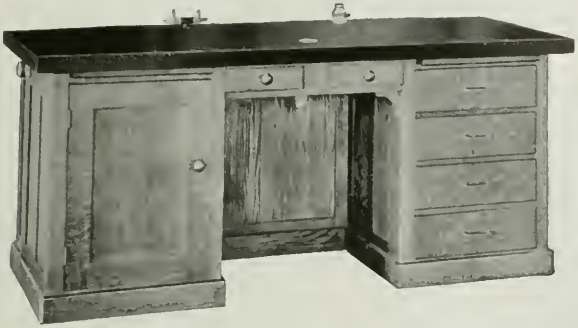


Fig. 1. Standard Section.

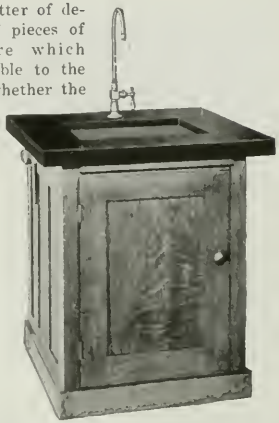


Fig. 3. Sink Section.

Fig. 2. Student Section.

Fig. 4. Chemical Section.

manner the needs of the individual worker. It seemed possible to modify this somewhat, in order that it would be satisfactory also for the student and general laboratory. From such tables, as in actual and continuous use have been found to be satisfactory, the pieces illustrated have been adapted to meet the requirements outlined. The feature which permits the combination of several pieces either of the same or different type has been developed by the manufacturer.

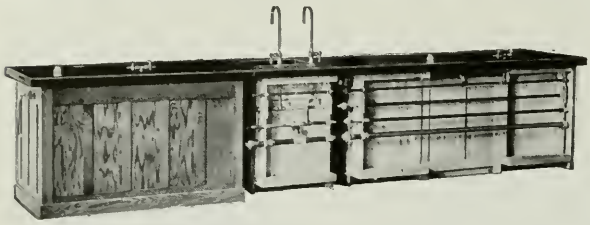


Fig. 5. Back view of Standard Section, Sink Section and Student Section connected together, with two back panels removed.

In Figure 1 is illustrated a table for the individual worker. The top is seventy-two by twenty-eight inches, giving a working space of fourteen square feet, and is thirty-one inches from the floor. There is ample drawer and locker space; a desk slide on each side has been found of great convenience. As illustrated, this table is equipped with gas, electricity, and illuminator for microscopic work. A similar section for student use, decreased in size by omitting the drawer pedestal, is shown in Figure 2. This has a working space of a little over ten square feet. It also is supplied with gas, electricity, and illuminator. Any number of such units may be combined, the union being made by means of a narrow panel.

Fig. 7. Front view of Standard Section, Sink Section and Student Section connected together, showing removable panels in place.

Although neither of these tables has water, each carries the piping for water and drainage, so that a sink section (Figure 3) may be combined at any desired place. A somewhat higher section (Figure 4) for chemical work can be combined with any of the units illustrated; in order that this chemical section may have its greatest usefulness, it will probably always have to be combined with a sink section. The method of combining the sections is shown in Figures 5 and 6; Figure 7 shows the appearance of a combination of the units illustrated in Figures 1, 2, and 3. Water, drainage, gas and electricity each requires only a single connection for an entire series of combined units. Figure 4, as illustrated, has the sanitary base; this, as well as the other sections, can be made with either the solid or the sanitary base.

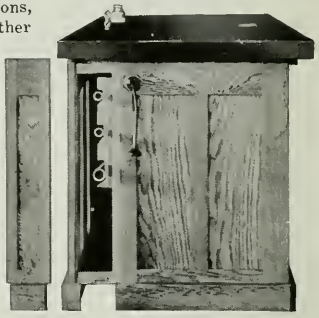


Fig. 6. Side view of Standard Section, showing removable panel, exposing pipes.

It is possible to apply the sectional principle to other types of units which might be combined with those illustrated. The latter, however, appear to have the widest range of usefulness and will meet most of the requirements of the medical laboratory. If remodeling, by any chance, becomes necessary at some later time, changing the units to fit the new conditions is an exceedingly simple matter.

REDUCING INSTITUTIONAL FOOD COSTS*

By MARGARET HOOKER, Domestic Science Instructor, State School for Girls, Adrian, Mich.

ALL meats should be selected with the same care as beef. Advantage should be taken of the laws our government makes to protect its people from inferior meats. Pork, perhaps, is not so profitable to buy in the carcass as beef; however, there are advantages either way.

Hog raisers used to raise two types of animal, "lard hogs," heavy weight, and "bacon hogs," light weight. But now they find it more profitable to produce a medium weight hog.

In purchasing a hog, its live weight should be about 250 pounds; when dressed, 190 pounds. The skin of pork should be white and clear, the flesh a good pinkish color. Pork must be kept in a very cold place, around thirty degrees Fahrenheit, for fresh cuts. Oftentimes the fresh cuts are preserved by smoking or salting, these are the hams, salt pork, and bacon, principally. The preservative used in these meats does not make it essential to keep in a very cold place. However, a cool, dry room is the best place for them to hang, thus preventing the growth of molds.

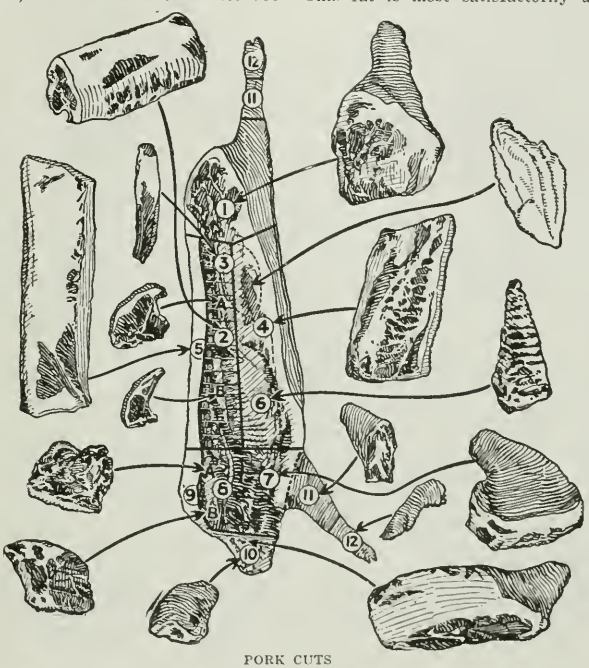
If an experienced person is in charge of the butchering, the purchase of the whole carcass is economical. There are so many by-products which may be used to good advantage. Hogs are dressed without the removal of the head, all parts of this may be used, as the snout, ears, lips, cheek meat, and always, lard. "Leaf lard" is

*This is the second of a series of articles by Miss Hooker, on "Reducing Institutional Food Costs." The first article appeared in the April issue of THE MODERN HOSPITAL.

obtained from the fat in the abdominal cavity. This is the finest grade, it is very hard, and has the highest melting point of any lard. Other grades of lard are rendered from trimmings and fat which cannot otherwise be utilized. If there are facilities for smoking and salting hams and bacon, so much the better, but if the institution is large enough, the fresh meat can very easily be used.

Perhaps less labor is involved in the purchase of pork cuts. In buying a whole ham, the butt can be baked, the center, sliced to be fried or broiled, the shank boiled, and the rinds used for various purposes for which fat is needed. The meat for roasts is taken from the ham, the loin, and the shoulder. The loin roasts are thought to be the most desirable, but the shoulder roasts are cheapest. The best grade of breakfast bacon is obtained from the belly. A fairly good grade is taken from the jowl, this is best used for flavoring purposes. Bacon should be sliced so thin that it is nearly transparent, and if properly cooked, will lose 60 per cent of its weight. Bacon drippings make an excellent cooking fat. "Picnic ham" is a part of the shoulder meat, it is not so palatable as the other but very much cheaper. It is best used when the meat is chopped for casserole dishes or "minced ham." The two grades of pork chops are the loin and shoulder chops. The loin is considered the most desirable.

Pork is very rich meat and should be eaten sparingly even by persons in the best of health, and never under any circumstances should it be served to a sick person. Sometimes in the period of convalescence bacon is very good and acts as a stimulant to the appetite. The fuel value of pork is very high.



PORK CUTS

Courtesy Wilson & Co.

Lamb and Mutton

Mutton and lamb may be purchased much the same as beef, but the cuts are very different. One side of mutton consists of only six different cuts. Young lamb, often called "spring lamb," is considered very choice, while mutton is more nutritious, as it is the flesh of the mature animal. If a lamb has been well fed and cared for, it is still a "lamb" at the age of a year to eighteen months.

Mutton should be of a good red color and fine grained, the fat hard and flaky. Lamb can be distinguished from mutton by the reddish color of the bones, while those of mutton are white. As mutton absorbs odors very readily, care should be taken to keep it in a cool place, away from anything with an offensive odor.

The fore quarter of mutton is cheaper than the hind, there is a larger amount of bone and the flesh is coarse and tough, but has a much better flavor. This is probably the reason for its popularity in mutton stews. In the process of cooking mutton stew, much fat comes to the top. This may be skimmed off and kept for other cooking purposes. To use this mutton fat it is best to combine it with some softer fat, as oleo or vegetable oils. Some persons object to the flavor of mutton fat, if it is to be used in cake making, the flavor may be disguised by the use of spices, chocolate, or any cake flavoring. This fat is most satisfactorily used in hot breads, as biscuits or muffins, which are to be eaten the same day on which they are baked.

Lamb chops and fresh green peas are often replaced by mutton chops and canned peas, which is, of course, by no means a good substitute.

Chops are taken either from the ribs, loin, chuck, or shoulder. The rib chops are very choice, but contain little meat, the loin chops are perhaps the most profitable to buy. The leg or loin of mutton or lamb is best utilized by roasting, although sometimes it is boiled. Other roasting meat is obtained from the ribs, breast, and chuck. For stew meat, and soup, it is most economical to buy the neck and shank.

Fish

The fishing industry is becoming greater every year, due to the work of the United States Bureau of Fisheries. Many kinds of both salt and fresh water fish are being utilized which heretofore were neglected. With the improvement of facilities for packing and shipping fish, it is possible to purchase fish in good condition in nearly any community. Fish is at its best, naturally, when cooked almost immediately after it has been caught. Up to the time of selling it should be kept on ice or in a frozen condition.

In selecting fish, the one main point to be considered is the freshness. If it is fresh, the flesh should be firm, the eyes bright and bulging, the gills red and free from any foreign substance, and when placed in water the fish should sink.

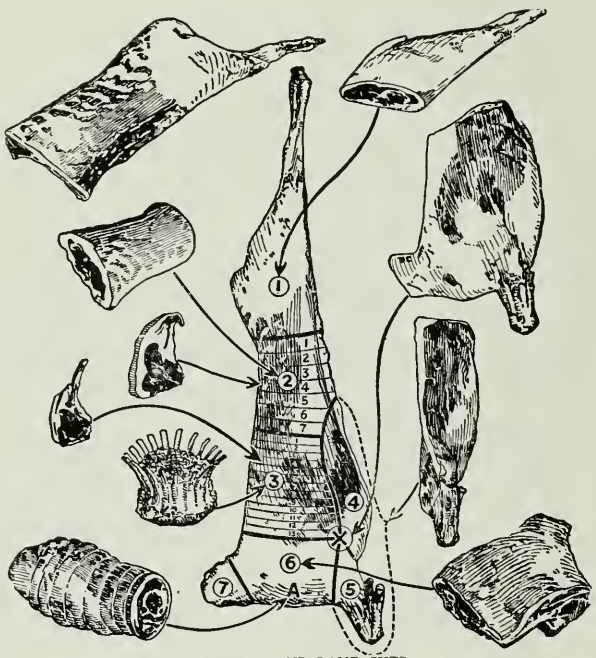
Fish are divided into two general classes: (a) Lean or white fish, in which the flesh contains little oil, the

fat being concentrated in the liver, to this class belong cod, haddock, trout, white fish, lake pike, perch; (b) oily or dark fish, in which the fat is distributed throughout the flesh, to this class belong salmon, mackerel, herring.

Careful preparation of fish is very important. A fish should be cleaned and drawn immediately after it has been caught, then kept on ice or in a frozen condition until ready for use. Contact with other foods should be avoided on account of its odor. If the fish has been frozen, it may be thawed by placing it in cold water with skin side up. In preparation for cooking, it should be scaled, skinned or boned, sometimes all these processes being necessary.

If the fish is to be baked, the head and tail may be left on, but the eyes should be removed. Fish may be broiled, baked, boiled, steamed, or sautéed. Haddock and lake pike are examples of fish which are good bakers. The fish should weigh at least four pounds and should be stuffed with highly seasoned ingredients. White fish is best broiled or sautéed with one of the many delicious fish sauces.

Fish is a very good source of animal food. It furnishes a good change in the diet and digests about the same as meat. It is high in protein and fat, the latter applies to class (b), but low in extractives. Most persons tire of fish quickly, chiefly on this account. The idea that fish is a brain food is false. It is a good source of phosphorous, which is a necessary body constituent. Whether the institution is religiously influenced or not, try to establish "fish days" and utilize low priced fish, it can be cooked just as well as the higher priced without the marked difference that there is in meats.


1 2 3 4 5 6 7
1 LEG
2 LOIN (Cut full in illustration) 1-7 Loin chops, English mutton chops
1 & 2 One-half a saddle
3 RIBS or HOTEL RACK 1-12 Rib chops, French rib chops (illustrated), crown roast (illustrated)
X - 3, 4, 5, 6, 7 Forequarter all cuts shown in illustration
4 BREAST
5 SHANK
6 CHUCK A Rolled shoulder
7 NECK

MUTTON AND LAMB CUTS

Courtesy Wilson & Co.

Oysters

Among shellfish, oysters are the most important. They are in season from September until May. They are not harmful during the other months, but are flabby, and the flavor is inferior. Oysters are not economical for the average institution to buy; they do contain all six foods, but the bulk necessary in order to get sufficient food value would not balance either with the rest of the diet or funds.

Poultry

The subject of poultry is very broad. We will only consider here chickens, which are the most common. Chickens are divided into three classes: broilers, roasting chickens, and fowls. Poultry is not protected by the United States meat inspection law, so the buyer should exercise great care in selection.

The same rules for selection should be observed in all three classes of chickens. See that the flesh is firm and that there is some fat underneath the skin, which should be of good yellow color. The odor should be good.

The majority of poultry which is on the market has been in cold storage, and to have kept properly it must have been in a frozen state. The popular demand seems to be for poultry not frozen, so it is not in that form when offered for sale. If possible, buy it in a frozen state, then there is no chance of previous deterioration.

Broilers are young chickens, usually ten to fifteen weeks old, and weigh from one and one-half to two and one-half pounds. These are quite expensive and a poor investment for the average institution. Roasting chickens include cockerels, pullets, and capons. These chickens are from eight to ten months old and weigh from four to six pounds. Capons may be distinguished from others because neck, wing, and thigh feathers still remain. In choosing these two classes see that they are plump, have soft, smooth legs and feet, flexible breast bone, pinfeathers, and tender skins.

Fowls are old birds. They are found on the market any time of the year at a nominal price. Fowls have hard and scaly feet, and a rigid breast bone, long hairs, rather thick, tough skin, and usually contain quite a little fat, which surrounds the intestines.

Cleaning chickens is an unpleasant task. Sometimes this is done at the butcher shop, but it would be an extravagance for an institution to demand this service. The chickens of the first class are broiled or sautéed. Roasters are stuffed, and roasted or baked, as their name implies. The fowls, which no doubt are the most common because of their price, may be prepared in many delicious ways. Some of the best are chicken fricassee, Maryland, pie, gumbo, casserole dishes, à la king, and the favorite chicken salad. It is needless to say that the fowls are best in the long run, but broilers are the most choice.

Chicken is very easily digested, especially the white meat. This contains less fat, and is found on the breast and wing. The dark meat on the leg is more tough and is closely held together by connective tissue.

Occupational Therapy and Rehabilitation

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS. Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
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TO THE HOSPITAL SUPERINTENDENT

The editors of this section appreciate their opportunity for real service to occupational therapy. The magazine as a whole contains just the general information that any broad minded hospital worker should possess, and our section can always be useful as a means of communication among ourselves. But THE MODERN HOSPITAL offers us a still greater advantage. Each issue goes where we want good, reliable occupational therapy news to go, right into the office of the hospital superintendent.

We believe that prescribed occupation as a reconstructive measure is an essential hospital function. We want the hospital authorities to realize that we are not exploiting a fad, that we are not the frenzied purveyors of a nostrum, but that we are earnestly and conservatively trying to demonstrate and to standardize a system which will increase the efficiency of the hospital in its mission of reconstruction. We want, incidentally, to call attention to the fact that hospital occupational therapy need not represent a large increase in running expenses, but that unique among therapeutic measures, this new system may be made partly self-supporting through the legitimate sale of manufactured articles.

Already some of the hospital executives have become members of our national society. More should follow. Such endorsements of our ends and aims are of the utmost value. If the hospitals need our cooperation, we need the advice and sympathy of the superintendents and their assistants, the backing of the staffs and trustees.

The editors hope that this section will be read from month to month by the hospital administrators, and that they will not hesitate to write us, giving their advice and criticism, and their constructive suggestions.—EDITORS.

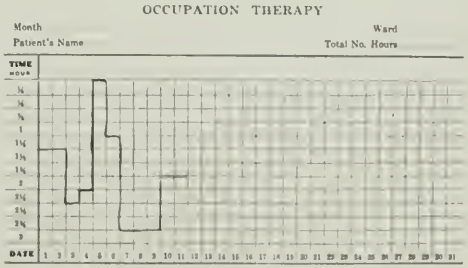
SIMPLIFYING THE RECORDS

There is no form of treatment more likely to be overestimated or undervalued than occupational therapy. We are as sure as we can be of anything, that careful occupational therapy shortens many a convalescence and brings the patient to his discharge in better shape for further progression than he would have been without the reconstructive work, but we must be very cautious in making our claims. Occupational therapy is only one of the many elements involved in treatment. The Christian Scientists attribute cure to their stimulating and absorbing belief—they do not allow for good nursing and the natural tendency of the diseased body to return to health. The patient who has consulted many doctors usually praises only the last one, the man who was called in just as recovery was about to take place. In our enthusiasm for occupational therapy we must not fall into any such errors. That way lies discredit for any system. Conservatism in our claims will win for us the respect and confidence of those who are watching our work. It would be well, perhaps for a long time, to make no claims at all.

After a while our records will speak for themselves, but these records, if they are to be of value, must be well kept and easily comprehensible, especially to the medical mind. Generally speaking, the more elaborate the record system, the less likely it is to be well and faithfully kept. The system of many blanks and duplicates will defeat its own ends. The chances are that no one will take the trouble to read such reports after they are made, and the labor reacts badly upon the aide, who knows it is unnecessary and who needs her time and strength for other things. The whole record system should be studied carefully and reduced to the simplest possible terms.

The practice of occupational therapy is based upon the belief that a convalescent patient who is busy and interested will make more rapid progress toward health than one who is idle, discontented, and discouraged. We have observed that work with the hands brings about desirable states of mind, and that in certain appropriate cases mechanical and functional improvements are quickly brought about. We cannot record a state of mind except very generally and imperfectly. Measurements of motion in injured and stiffened joints are possible, to be sure, but even here we may not say surely that occupational therapy was alone responsible for the gain. The one thing we can record accurately is the time during which the patient has applied himself to a given job without serious fatigue.

However such a record may be interpreted in relation to recovery, it is well to know and to state clearly that a patient has or has not been able to increase the time of his work. Many subtle elements are involved, some we will never understand and most we do not need to understand. The self-evident fact is that John Smith,



who would otherwise have lain idle, whose convalescence would have been enlivened by nothing more exciting or useful than gambling or gossip, whose principal occupation would have been grumbling, has been able to apply himself without fatigue to a complicated bit of constructive work, at first for ten minutes a day, and then by gradual progressions for three or four hours. What has happened? We do not know, and literally we cannot tell. The medical record will say that the man is discharged well or much improved, and it will state what forms of treatment were used. We shall perhaps be required to make an estimate of the patient's functional improvement, of his ability to concentrate, and to sustain effort. But for the present we may be well satisfied to record what he has actually accomplished in the way of diversional or curative work during convalescence. Such an extreme reduction of detail may prove to be unwise. There will be chronic cases in which occupational therapy is the sole method of treatment. Here we may be more explicit, more elaborate in our record. But on the whole we should be aiming always for simplicity in our statements, and it should be our constant care to avoid unfair or extravagant claims.

Miss Dorothy Ross Carmer, head aide at Sea View Hospital, West New Brighton, Staten Island, N. Y., has devised an excellent chart, one which may be kept at the bedside or in the chart room and which may later be clipped onto the medical record. It could be improved by reversing the figures at the side so that the record line would read upward instead of downward.

Suppose the character of the work is changed midway in the month and a substitution made of something much more difficult, something requiring more concentration or more physical effort, there would occur presumably a sharp decline or rise in the line, that might be confusing and deceptive. At this point we should write in the explanation. The progression would then be on a different level but would have the same relative value. Suppose the daily hours of work remain the same week after week. This might be interpreted to mean that the patient could not or would not do more. An explanatory note should be made on the back of the card or between the lines. The reason for an unvarying level may be that no more time is available or that the limit is made arbitrarily by the teacher because she fears that a longer time of work would bring about fatigue and discouragement. Quality of work is important, and there should be at least a monthly note on this point. Quite often improvement in quality will be as significant as increase in time. Let these simple notes be made and the occupational therapy record is complete, a record easy to write, easy to read, and to interpret.

There are many systems in use, some may be better than this. Occupational therapy workers everywhere are urged to send in their record forms to the editor. We will gladly publish any that may possess special features of interest. It is only by comparisons that we may hope to make rapid progress toward standardization that will unify and advance our work.

We need also a standard system for the stock and supplies, a simplified bookkeeping that will save work and still be accurate and complete.—EDITORS.

THE CLINICAL ASSISTANT

BY FRANCES E. WOOD, DEVEREUX MANSION, MARBLEHEAD, MASS.

I HAVE been asked to tell about a comparatively new position in occupational therapy which has grown out of the special conditions existing at Devereux Mansion during the last year. Practically all the patients at this institution do manual work in the shop. There is very little bedside work. We have three departments, cement, pottery, toy making, and hand weaving. Each has its own instructors and assistants.

The first consideration in this shop is the welfare and progression of the patient; the second, the training of apprentices; and third, the production of crafts work. In order to maintain a high standard in each of these departments it is necessary for the teachers to give practically all their time to the technic of the work and to the actual instruction of patients and apprentices. We have sometimes found it difficult to combine with these requirements enough personal attention to the patients. Here and there in the zeal for good work and for quantity production, patients have been allowed to overdo, and occasionally, because of some real or fancied disability, they have not been pushed ahead as fast as was consistent with their actual possibilities.

The need of what might be called a fine adjustment between the patient and teacher is met, to a considerable extent, by the oversight of the doctors, but just as the teachers are sometimes overtaxed with the technical requirements of their work, so the doctors are at times unable to give sufficiently close attention to the patient during actual working hours. This gap into which a patient occasionally falls, with unfortunate results, we have been trying to bridge by the new position which I have held during the past year. The position might well be called that of clinical assistant in occupational therapy.

Supervises Work of Patients

It has been my duty to supervise the work of the shop, not at all from the technical point of view, but wholly in the interest of the patient. Although I do, at times, visit patients in their rooms before they are able to go to the shop, taking them work and supervising its execution, my time is mostly spent in the shop itself, watching the reaction of the patients to their work, straightening out such misunderstandings as may arise in their minds as to the significance of the work, keeping records of time and quality of individual work, looking for signs of fatigue or of overzeal, encouraging the slow and the timid. It has been my duty to report daily to the doctors any evidence that I could see of ineffectiveness in the application of the occupations to individuals. I have been asked to judge when it might be wise for the patient to change his occupation or to diminish or increase the time of work. At first thought it would seem that the regular teachers in the shop should be able to meet all these requirements, and for the most part they do. It is not intended that they shall resign their responsibilities as clinical instructors, but here, as in any large shop, the actual technical requirements are so considerable that it is a measurable relief to the teachers to be able to turn over special problems to the clinical assistant. The teacher, for instance, is obliged to move more or less

DEVEREAUX MANSION OCCUPATIONAL CHART.

Patients' Names.	AM. 9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30	2:45	3:00	3:15	3:30	3:45	4:00	4:15	4:30	PM. 4:45	5:00	Kinds of Work.
Miss A.				X		X		O																		X		O						Cement.
Mrs. B.								X		O											X	O	O											Cement and Weaving.
Mr. X.				X	X		O	X	X	O	O										X		X		O									Toy Making.
Mrs. R.								X													X													Toys and Baskets.
Mr. D.				X	X	X			O												X	X	X	O										Cement.
Mrs. H.					X		X	O													X		X	O										Toys.
Mr. F.			X	X																	X	X												Toys and Weaving.
Miss O.				X		X		X													X		X		X	O								Weaving.
Miss S.				X	X	X	X	O	O	O	O										X	X	X	X	O	O	O							Weaving.
Mr. W.			X	X	X		X	X	X	O	O	O									X	X	X		X	X	X	O	O	O	O			Weaving.

X = Green headed tacks, the first prescription.
O = Brown headed tacks, time added.
Chart made of stiff cardboard or mounted on wood.

rapidly from one patient to another. Patients who are beginners, or who are inept, or unresponsive, frequently require a longer personal oversight than the teachers can give. My position does not differ materially from that of head aide in any hospital workshop, except that as clinical assistant it has not been necessary for me to plan the work, to issue materials, or to keep track of the actual conduct of the teachers and apprentices.

Makes Clinical Report to Doctor

The initial work prescription is always made by the doctors. The teachers in the different departments report their difficulties to me. I make my personal observations and take these, with such advice and suggestions as occur to me, directly to the doctors. The teachers are entirely at liberty to go to the doctors with their own problems, but it simplifies matters to have the clinical report of the shop made by one person to whom instructions and suggestions may be given.

In this particular shop the teachers and apprentices, when they are not teaching, are supposed to be at work turning out products which represent a standard, and which, to a considerable degree, contribute to the income and upkeep of the shop. The teachers and apprentices have more time for such work by virtue of this new arrangement.

Before and after shop hours I have not infrequently an opportunity to prepare the patients for their work, to see that they approach it in the best possible way, and finally, to observe the after effects of the work more accurately than would be possible for the teachers, who, for the most part, do not live in the institution and so lose track of the patients except in working hours.

Those of you who have had much experience with occupational therapy will, I think, appreciate the opportunities of this position, and also some of its trials. The utmost cooperation is necessary between the teachers and clinical assistant. Any lack of harmony here would be fatal to the efficiency of the shop. The confidence reposed by the physicians in the clinical assistant must never be misplaced.

Must Have Enthusiasm for Work

My experience has taught me that such a position presupposes a considerable knowledge of technic in the various crafts, a sympathy which is intelligent, and a firmness which is not exacting. More than all else, it demands an enthusiasm for occupational therapy as a means of physical and nervous restoration, and as a background for the medical treatment of any long continued illness.

Above is the continuous occupational therapy chart in use at Devereux Mansion, Marblehead. In the columns at the left are patients' names. In the column at the extreme right are names of departments of work. At the top (reading across) is the working time divided into quarter hours.

The doctor's first prescription for each patient is noted by inserting green pins in the squares to indicate length of working period. Rest periods or time devoted to other matters are noted by squares left vacant.

As the patient's time of work is increased, brown pins or some contrasting color are added. This shows at a glance what progress the patient has made in occupational therapy, and can readily be compared with the physician's observations of improvement. This ward or shop chart requires little time for upkeep. Besides showing the progress of individual patients, it gives a graphic indication of the work which the entire shop or ward is doing at any given hour in the day.

SUGGESTION FOR RECORD CARD

Miss Lena Lewis, director of occupations of the Pawling Sanitarium, Wynantskill, N. Y., writing in regard to occupational therapy record cards, suggests that in addition to the indication of the time given by the patient to work, there should be some statement as to his degree of contentment and apparent enjoyment of the occupation; also a statement of the value of his products and of the money return which he has received. She feels that these are clinical items and that they are important in the interpretation of the patient's hospital record.

Would it not be well to have on the back of the time record card suggested by Miss Dorothy Ross Carmer the following items:

Effort—excellent, moderate, poor.....
Quality of work—excellent, moderate, poor.....
Money return to the patient during the month.....
Approximate cost of material.....

SHRINERS BUY SITE IN ST. LOUIS FOR HOSPITAL

It is announced that the site for the $1,000,000 hospital for crippled children, to be built as a national charitable institution by the Shriners of the United States, has been purchased in St. Louis, Mo. It is in the Barnes Hospital group, with a frontage of 380 feet, and cost $150,000. Erection of this hospital will virtually complete this hospital group.

The plans for a 150-bed hospital are being drawn, and construction will be started as soon as possible. The hospital will be for crippled children of the United States, regardless of religion or relationship to the Shriners' order.

OCCUPATIONAL THERAPY IN CONVALESCENCE OF WOMEN

By ELIZABETH MUIR, Supervisor of Occupational Therapy, The Burke Foundation, White Plains, N. Y.

THE Burke Foundation opened its country convalescent institution six years ago with definite program and equipment for women's occupational therapy, as an important aid in restoring this class of patients to fitness for return to work-and-play life. The peculiarities and difficulties of this particular problem are incident to the short period of stay, averaging but three weeks, the first of which is not available usually for occupational activities. Upwards of 12,000 women and girls of all classes and diagnoses have been recuperated; and there has never, from the first, been doubt of the high value of our work cure; rather a constant extension and development of it.

Convalescent care is apt to be defective in two ways: the prevalent psychoneurotic weakness and deviation is not corrected; and too prolonged a period of merely resting leaves the person physically and mentally "soft" and unready for competitive living. The aim should be fully to carry the patient over the uncertain and markedly life-influencing time between getting out of bed and getting to work—to send the convalescent out "set up," and keen for social living. Gradually increasing physical and mental occupations, along with suitable recreations, are most effective in accomplishing this. Advice so frequently needed is: "We aim not to fatten you, so much as to strengthen, toughen and re-courage." Convalescent occupations are chosen and modified in view of these fundamentals.

In the brief residence with such widely diverse social, temperamental and disease states, it has proven best to have the occupations essentially compulsory. Nor is the particular kind of work so important as the doing of something for someone else, thus working gradually outside of self.

Flower gardening is part of the occupational therapy work at the Burke Foundation.

Certain unforeseen values have come with this therapy: occupational recreation is the best test of the patient's convalescent spirit and cooperative desire; likewise a test of prognosis, progress, and of final fitness. The group is bound to have a percentage of early dissatisfied and disturbing persons; if these begin to do well in occupation they do well otherwise, and succeed in all round convalescing. Upon report and complaint, a first question is, "What of her occupation record?" Neuropathics and those of doubtful adaptability, the various border-liners, are earlier entered upon the work, and much waste of time and effort is thus avoided by aid of this trial measure.

Even the sewing classes are conducted out of doors, where the patients have the benefit of pure air along with the curative qualities of the work.

One hour per day, beginning at 10:30 a. m., is prescribed; in addition to the making of one's bed and tidying of the room, personal upkeep, mutual helps, etc. From one to ten days of orientation are given before listing for the work: physician's excuse from it is thereafter required. Given in this way, it is taken as a matter of course, begun with some hesitancy and resistance often, but soon understood and enjoyed. Many need to be repressed from spending too much time and nerve force therein.

The occupation consists of (1) work for the institution's equipment and maintenance, (2) for the sales department, (3) assistance and leadership in various lines. With a total population of over four hundred, the institution has gotten on well without a seamstress department. The patients (both men and women) have largely "made the place," and keep it in supply and repair and advancement. A partial list will sufficiently indicate the scope of the occupations: making and upkeep of all institutional linen, curtains, shades, pillows, cushions, table mats, towels; vegetable and flower gardening, vegetable preparation, lawn care, haying, snow cleaning; preparation of all surgical supplies for large dressing service; making of paper flowers, dolls, wax goods, rugs, and rug binding, loom products, baskets, photography, a varied line of fancy work, art decorating, etc.; "assistant" details, as in library, occupation and recreation; arranging and costuming for shows, entertainment in general, order and various

Even haying is not too strenuous to be included in the program.

appointed leaderships and committees, messenger service, office and cottage aides, etc.

The women's group numbers 150; twelve to twenty of these are girls from ten years up. About 80 per cent are at all times in prescribed occupation. Sewing and fancy work may seem to have too large a part in the régime, and many women justly object to this, at first, as drudgery they expected to escape from in convalescence; other kinds of work are then suggested, but these very patients usually come back to some kind of needle or fancy work, mainly to "kill time." Gardening, except the care and arrangement of flowers, has but moderate feasibility for short-term patients, because of the special clothing required, the dullness and lack of quick results; but the women are heartened and improved in general by physical work, especially out of doors.

Too many kinds of work are often attempted at one time. Best results come with alternations to suit particular abilities met with in the rapidly changing groups; much training-up, or fine quality of workmanship is not to be expected. Patients do not clean their rooms or assist in the dining service; but they carry on considerable mending, simple sick care, etc., for each other, and as energy increases they do things for themselves and their homes. The larger part of the handicraft work is taken to the cottages, and done much out of doors. Certain advanced and long-stay patients, as cardiacs and empy-

Shoveling snow is one of the permitted occupations.

emas, go on "pay occupation" at twenty cents per hour, two to six hours a day, substituting in regular employees' duties or on equipment and repairs. From this they may grade understandingly into full employment here, or elsewhere.

Most of the occupational products are bought by patients and their friends, at prices covering cost of material plus 10 to 20 per cent for "overhead." Last year's sales amounted to $2,000, which income is applied wholly to the Research Fund, for study and advancement in convalescent, cardiac, and allied lines; and this has proven most advantageous in giving clear understandings, and impulse to make, and buy, and give more. The occupation department is supported from the general fund, and thus given the status of an essential, like nursing or food.

The soul collects its mightiest forces by being thrown upon itself, and coerced solitude often matures the mental and moral nature marvelously.—F. W. Robertson.

THE BUREAU OF OCCUPATIONAL THERAPY

By RUTH WIGGLESWORTH, Boston, Mass.

The Bureau of Occupational Therapy was started in April, 1920, with a four-fold purpose. First: for the buying of materials for departments and individuals, making it possible, in spite of commission charged, to deliver at better than retail prices; second, for the sale of finished articles; third, for the exchange of designs and ideas throughout the country, (the Boston School of Fine Arts makes for, and gives to the Bureau any designs desired, which is the greatest possible help); and fourth, as a means of promoting service and of securing an understanding between the purchasing public and the hospitals, curative workshops and the department of district occupational therapy.

During the summer there were no headquarters, but the person in charge bought and sold for three hospitals to prove whether this could really be done to advantage. By fall there was evident need for a central room. This room was opened November, 1920, at 367 Boylston Street, Boston, Mass., and letters were sent to hospitals and aides asking cooperation.

The following experimental plan was determined upon. A charge of 33⅓ per cent to be asked on sales of articles, and 10 per cent on purchase of materials. It was then found that aides would like to join as individuals, so an annual membership due of $2.00 was charged. Already, twenty-seven aides have joined, from the following states: Missouri, New York, Massachusetts, North Carolina, South Carolina, Ohio, Colorado, Michigan, Pennsylvania, and Minnesota.

Though the Bureau headquarters have been open but three months, the following have already in some way received help: The Massachusetts General Hospital, the Robert Brigham Hospital, Peter Bent Brigham Hospital, The Boston Consumptive Hospital, United States Public Health Hospital No. 44, the McLean Hospital at Waverley, Mass., Clinton Hospital, Boston City Hospital, the Memorial Hospitals, at Worcester, Mass., the Sanitarium at Clifton Springs, N. Y., the New York State Commission for the Blind, Department of District Occupational Therapy, Red Cross, Dr. Lord's Work Shop at Concord, Mass., Mr. Alexander Bell, Miss Snelling, Mrs. O. W. Tompkins, Boston School of Fine Arts, Boston School of Occupational Therapy, and others.

The Bureau is not meant to be a separate organization, but a helper for all occupational therapy workers. Time, and the cooperation of all desiring such a center, are necessary to bring it to its greatest usefulness.

If such a plan can be of service to anyone, wherever working, consider it yours. Give us constructive suggestions and state how this Bureau can be of the greatest help to you.

We believe that such a Bureau will have a real future, and that it can become an important link in the organization of occupational therapy. Address the Boston Bureau of Occupational Therapy, 367 Boylston Street, Boston, Mass.

TO DISCUSS EDUCATION OF AIDE IN JUNE NUMBER

The June number will include editorials and special articles on the education of the occupational therapy aide. This most vital matter is still widely open for discussion. It is too early yet to be final in our decisions or recommendations but not too early for the expression of opinion and for tentative conclusions. The educational number should be read by everyone interested in the future of occupational therapy.—EDITORS.

BIRMINGHAM UNION DOES IMPORTANT WORK FOR CRIPPLES

The Birmingham Cripples' Union, in Birmingham, England, covers five fields of activity: (1) visiting of hospital cases and after-care following discharge, (2) treatment in convalescent and nursing homes, (3) provision of surgical appliances and medical comforts, (4) friendly visiting of cripples in their homes, and the organization of occasional social entertainments, and (5) education and the apprenticing of cripples in various trades.

The Union was founded in 1899, though the work which it took over had been started in 1896 as a department of the Hurst Street Mission. In the first years the original idea of the committee of direction was to provide a connecting link between crippled children and the agencies which it was thought existed to care for them. No sooner had systematic visiting begun, however, than it was discovered that the existing agencies were by no means complete, one of the most important was missing, a convalescent home. Such a home was therefore started, but a few years' experience demonstrated that this was inadequate, that what was needed instead was a surgical and nursing home. As a result, "Woodlands" was opened in 1909, with a capacity of forty beds. Its accommodation has since been increased to 104.

The next need was for a convalescent home and hospital school to supplement the work done at "Woodlands." Through the aid of the *Birmingham Mail*, funds were raised and a house known as "Forelands," with seventeen and a half acres of land, at Bromsgrove was purchased. Two open air wards and one open air schoolroom are now in course of construction.

The society operates its own shop to make surgical appliances, so that necessary apparatus can be had promptly.

An orthopedic clinic is operated in Birmingham, growing out of the original work, still vigorously continued, of visiting and exercising general supervision over the crippled children of the city.

One of the most interesting features of the organization is its "Workmen's Auxiliary Committee," organized fourteen years ago to enlist a new type of interest and open up new fields of financial support. The first year this committee raised $320; during the past year it has raised a sum of over $8,000.

ILLINOIS SOCIETY OF OCCUPATIONAL THERAPISTS MEETS

At the annual meeting of the Illinois Society for Occupational Therapists, the following officers were elected for the ensuing year: president, Miss Katharine Staples, Psychopathic Hospital; vice-president, Miss Elsie Hassenstein, Cook County Hospital, recording secretary, Miss Helen McNeal, Vocational Committee for Shut-Ins; corresponding secretary, Miss Jeanette Beroltzheim, Marine Hospital; treasurer, Miss Winifred Brainerd, Presbyterian Hospital.

Before the business meeting, Dr. Neymann, superintendent of the Psychopathic Hospital, showed from a doctor's point of view what occupational therapy means in his hospital. At this hospital there is a large floating population of from 120 to 175 patients per week, 17 to 18 per cent of whom improve or recover. These patients enter the large wards on the third floor, where they are handled in groups. Occupation is given to them with the idea of improving the general morale of the wards, rather than giving special attention to individuals. The result is that the whole atmosphere of the place is changed; the patients do not just sit around, because they have something interesting to do. Their attention is taken away from the fact that they are locked up. In other words, occupational therapy has proven very satisfactory, even indispensable. The situation here, he pointed out, leads to the problem of what shall become of the patient when he leaves the hospital. Some go to state institutions, where in the occupational department each patient helps to make his own group more productive, others go out into the world again, where they are not able to cope with conditions as they find them. An outside department which would work from an industrial standpoint is needed, said Dr. Neymann, so that a certain per cent of these patients could become self-supporting, and assets to the community.

THE BIBLIOTHEQUE ET MUSEE DE LA GUERRE SOLICITS AMERICAN SOUVENIRS

The "Bibliothèque et Musée de la Guerre," established by a vote of Parliament and placed under the direction of the Minestère de l'Instruction Publique et des Beaux-Arts, is the French official library and museum of the war. Its object is to collect, classify, and catalogue the more important documents, books, and objects of historical interest dealing with the war, its causes and results; to preserve for posterity the complete record of these crucial years in the world's history.

The aim of the library is not only scientific research, but also popular instruction. The library is open to the public; temporary and permanent exhibitions are arranged in the museum.

The library collects the official documents of all the governments, belligerent and neutral; books and pamphlets dealing with the various aspects of the war, publications of auxiliary and volunteer organizations, magazines, newspaper reviews, propaganda, maps, letters and diaries, statements of prisoners, etc.

The museum collects pictures, stamps, posters, drawings and sketches, photographs, models, games and toys made by the wounded, knick knacks and the intimate souvenirs of all kinds associated with the armies of the prosecution of the war, or reflecting the life of the people in war time.

The large collection which M. and Mme. Henri Leblanc began in 1914 forms the foundation for the present library; their patriotic activity and bequest have secured for this institution much valuable material. That the success of the undertaking may be complete, the generous cooperation of all who possess objects of historical value is invited.

The British and American section, being of recent creation, is still very small and incomplete. It is the desire of the director to make this section thoroughly representative of the mighty and victorious efforts of the British Empire and the United States. Regular donations to the war library and museum, forming a lasting monument to the British and American nations, will make still more intimate the friendship between France and her allies.

All communications and material should be sent to the following address: Mr. le Ministre de l'Instruction Publique et des Beaux-Arts, Bibliothèque et Musée de la Guerre, 39 rue du Colisée, Paris (8ème).

The Bureau of War Risk Insurance announces that the sum of $1,154,911,719 has been paid out in death claims, and $29,577,540 for disabilities, during and since the war. The Bureau had issued $400,000,000,000 in war risk insurance up to August 31.

Health and Modern Industry

PHYSICAL EXAMINATION AND RECONSTRUCTION*

By A. A. BUREAU, Manager, Industrial Relations Department, Morris & Co., Chicago, Ill.

ONE of the great problems today before the industrial committees of big industry is to determine the exact place physical examinations should occupy in the selection of employees. In the past we have hired men upon the basis of education or skill. In this day when physical examinations, army and industrial, are so common, we are beginning to realize that there is still another great factor in the hiring and placing of men. A man's mental alertness, soundness of judgment, or efficiency and skill in his trade depends, to a large extent, upon his physical condition. A man in poor health is like a dirty machine. He cannot make his body respond quickly in the face of impending danger, nor can he do his best, regardless of how good the working conditions may be. As to safety, an abnormal man is never 100 per cent mentally or physically alert. Such a man decreases the safety of his fellow workers. Accidents are costly misfortunes, both in human suffering and cold cash. As to efficiency, anything less than his best reduces the production of that department. The loss in production caused by the physical health of one man, when multiplied by many such men, soon can make a marked difference in the total amount of production for the plant. Therefore, the physical condition of the employees is an important factor: (1) in the reduction of accidents, and (2) in the cost of production.

Will Have Wider Application

Looking upon physical examinations as one means of controlling the number of accidents and the cost of production, I believe that the place of the physical examination department shall be looked upon more and more as an absolutely essential part in any well regulated industrial organization. Also, as time goes on, there will be more emphasis laid upon the grading of workers as to their physical fitness to perform the work of the particular job for which they are hired. In industries where there are no physical examinations, they will be required, and in industries now conducting such, the work will be done with more care and precision.

Physical examinations as now conducted in army, civil, or industrial life, are to keep out the physically unfit from a particular organization. The army refused the imperfect man, the life insurance company rejects the poor risk, and the industrial organization turns down the man liable to be injured at his work. Then we have the just passable class in industry which may be in the unfit class of tomorrow. Our physical examinations, accordingly, in the future, must take on a broader scope—in other words, if they are to serve the community and industry as a whole they must build up some form of reconstruction work to be followed among their employees.

These are, in brief, the reasons why physical examinations have a place in industry. They give a glimpse of what their future must be, and bird's-eye view of their present status. We may now examine step by step how we provide for the safety of our employees in the elimination of the unfit and in medical reconstruction.

The first step in the elimination of the unfit takes place in the employment office. It is the duty of the employment manager to hire those he deems good risks of industry, that is, men who have the necessary strength and energy to safely perform the duties of the jobs open, and to pass up the rundown and the physically unfit otherwise. This may seem a divergence from the subject, but it is a very important step and must not be overlooked. The doctor's office is not then made a weeding-out station. The doctor must ever stand as the friend of the plant workers; in fact, he must take the place of the employer, as the caretaker of his injured employees. In the olden days, in case of an accident, the boss went personally and looked after his hired man; but the times and conditions have changed with the rise of big industry. In his examinations, the examining physician must stand as a reconstructionist, if confidence is to be placed upon his advice for the physical upbuilding of the one examined. If the doctor is seen as their true friend in the time of their physical disability, there can be no more powerful influence in the getting of the good will of the employees. Therefore, the doctors should be called upon to reject very few men, in fact, only in case the disabilities are masked or denied. The employment manager must be held strictly accountable for the class of men he hires. It makes a much better impression with labor to pass up a man than to have him rejected because he cannot come up to the company's set rule. Under no circumstances should the employment man be allowed to pass the buck to the doctor's office for the rejection of all the unfit.

After the hiring of the applicant ultimately comes the physical test for fitness. The examinations may be conducted immediately and before the man goes to his job, or after he has been on his job for a few days. We examine our men after they have gone to work. Several obvious reasons present themselves for this procedure.

*Presented before the Ninth Annual Safety Congress, Milwaukee, Wis., October 1, 1920.

First, it is easier to induce the men to go to work. They do not have ever in their mind that immediately following the acceptance of the job they will have to be subjected to a physical examination—a thing often repulsive to the workers. This way they will be given a chance to see if they like their job and want to stay with it. Our experience is that the men don't object to the physical examinations after they are hired. A refusal is a rare thing. These are usually among the ignorant whites. Second, the examinations can be made more thoroughly and will be of greater benefit to the employees. Our big hiring day is Monday. The rest of the week is slow in comparison. Thus, if the doctor had to examine all of Monday's applicants on Monday, he could give them only a very superficial examination. In very few cases could he actually take time to give advice. If the doctor has more time, he can advise each one personally. Also, he will have only as many as he can handle by calling the applicants from their work. Third, examinations on which the doctor can spend time and give adequate counsel create loyalty to the company, and give the man a view that the company doctor is a real friend, not one who does just as little as possible because he is a company doctor.

How Work Is Managed

The calling of the men up to the doctor's office is an ordinary matter of routine. The time office furnishes a list of the additions, transfers, and take-offs from the pay roll to the examining physician's clerk. He makes up a list of the men required for examination. The record card of those transferred is automatically renumbered and refiled. The record cards of the take-offs are removed from the live file and placed in the dead file. The list of the unexamined is sent to the different foremen by a messenger boy who goes to each and notifies him of the men he is to send to the doctor's office that day. The foreman gets a duplicate copy of the list and puts his name on the original list to show that he has been duly notified, and he is thus held responsible for sending those men to the examining room that day as he can spare his men. With each man is returned an "O. K." card to show the foreman that the man has been to the doctor's office, examined, and accepted.

The examinations are conducted more or less on the army routine. We have the applicant remove his clothing. Every irregularity is diagnosed and noted on his record card. The examinations are thorough in every respect, and at the bottom of the card is noted our opinion of the safety risk and fitness of the applicant.

During the month of July we made some rather broad studies of our physical examination findings, based upon the record cards of 855 men. It rather startled us at first to find so many defective men; however, in a study made by a life insurance company, it reported only a little over 2 per cent of the men they examined were found perfect. Out of this 855, we found sixty-eight men, or 8 per cent, had some defect of the hand or arm, such as amputated fingers, stiff joints, rheumatism, cut tendons, etc. Thirty-three men, or approximately 4 per cent, had some defects of the feet, as bunions, deformed toes, amputations, etc. Fifty-eight men, or about 7 per cent, possessed some varicose veins which, in most cases, are not now serious but may, in old age, be a very serious annoyance. Two hundred and sixty-two, or 30 per cent, were afflicted with flat feet, which includes varied from slight to extreme flat feet. One hundred and fourteen men, or 13 per cent, had some form of organic heart disease. Seventy-seven, or 9 per cent, possessed either umbilical, single or double hernia. Seventy-six men, or 9 per cent, had hemorrhoids. Nine men, or 1 per cent, were found to be blind in one eye. Taking 20/40 as a basis for poor vision, sixty-five were found to have poor vision in one eye; and ninety-seven, or 11 per cent, to have poor vision in both eyes. Also, we found sixteen other defects of the eyes, such as strabismus, cataracts, nystagmus, ulcers of the eye, etc. Six men were found with some form of venereal diseases. In most of the cases, the defects were minor and did not affect the efficiency of the worker to any great extent. However, they make him liable to accidents.

In a more recent examination at our car shops of one hundred and eighty-two men, we found fifty-five defects which made the men employed in a more or less risk to the company. Of this number of men, we classed one hundred and forty-two men as good safety risks. Thirty-four men as fair safety risks—that is, they were passable, and six were classed as poor risks, or below the standard to be employed.

Causes for Rejection

The causes for which we reject men are: (1) contagious diseases of various sorts, such as venereal diseases, tuberculosis and skin rashes and eye diseases. (2) Poor safety risks. This includes those who are more or less a safety risk to the plant, endangering their own well being or that of their fellow employees. In this class are hernias, very poor vision, paralysis, fits, and the like. When possible, we place this class of men in positions that do not require the same energy or strength as the ordinary job. (3) The physically undesirable, those who should not work at some particular class of work. This includes those with weak lungs in the fertilizer or hair house, rheumatic people in the pork room, tripe room, or freezers, where there are wet and cold conditions. In most of these cases we try to find something else open in our plant where this individual may work without injury to his health.

Our physical reconstruction work may be divided into three different classes: (1) Medical advice (a) advice regarding simple medical treatment which they can do for themselves, and (b) advise as to the work which they can and cannot perform to their physical well being. (2) Medical and surgical aid. (3) Advice and instruction as to free dispensaries.

For minor medical cases we often write a prescription. In many cases we recommend something that the man can buy at the drug store at a very small cost. This applies to skin rashes of a non-contagious nature, bronchitis, colds, etc. In the case of bad varicose veins we either recommend that the man have an operation for the same or wear a rubber stocking.

In the heart cases the men are given advice as to what kind of work they can do with safety to their health, and also general advice, such as to avoid running upstairs and the like.

Venereal cases are simply directed to go to a good physician and get a permanent cure or go to a government or city dispensary and get the proper medical treatment there; also to avoid quacks. In no case do we allow them in the food producing departments.

For hernias we advise operation. The young man we especially recommend an immediate operation while he is young and can easily undergo the operation. In the case of an old man we recommend that he get a truss. In all cases we require either an operation or the wearing of a truss before they come back to work.

Such examinations disclose a lot of men who have not

been vaccinated, especially among the colored, and we require vaccination either by their own doctors or the examining physician.

In case of failing vision we lay strong emphasis upon their securing the proper glasses. If they haven't the money to purchase the same, we send them to an eye dispensary where they only have to pay for the lenses.

The degree of ignorance prevailing among the ordinary workmen is appalling as to where he can get free medical attention without cost or expense to himself. In most cases, this free medical attention is far better than he could afford. In the large cities there are hundreds of free dispensaries for every kind of an ailment, dental, eye, operative, skin, lung, medical, etc., but they often fail to reach those in need of such services.

Many workmen have serious defects often unsuspected by themselves. Many come in who have no idea as to the condition of their lungs, others as to their heart, etc. Most workmen do not realize the seriousness of having hernia. We question them about it and advise the proper treatment, and they will come back invariably with the statement that it has never bothered them. Many would rather quit their job than buy and wear a truss. Many do not suspect at all the presence of hernia, even when of fair size, until it is brought to their attention. In one case, especially, the old colored man said to the doctor, "I got a swelling and I'se been putting everything on it, salve and poultices, and it won't go away." What he had was a hernia.

Then there should be physical examinations of the old employees at intervals to reveal if there is an approaching disease. Many a disease, if detected at the beginning, can be forestalled or warded off. The great trouble is that most workmen allow the disease to get a great hold upon them before seeking proper medical service, as borne out by statistics which show that 650,000 workmen die every year from preventable disease.

The finding of the unsuspected defects is the greatest good that can be derived from a physical examination department. Only in this way can the man, his company, or the community be able to help in maintaining his good health. If for no other reason, this aid to the individual employee justifies the existence of physical examinations in every industrial organization. Then the placing of men in jobs according to their strength and energy often saves the loss of life and limb. The saving of one life is worth the necessary expense of a whole department.

Our experience would lead us to say that the hiring of men under a physical examination system is the only way of intelligently employing men. When the employer does not know the fitness of his men or the men do not know their own fitness, it is as if the blind hired the blind. Physical examinations are not conducted to bar men from industry, but to place them where their own well being is not endangered. Only by the examination system can the employer get at his men to carry on any kind of physical reconstruction work among his employees. From the viewpoint of efficiency, physical examinations are essential. Industries where they do not place their men according to their physical fitness pay very heavily for weak help. From the viewpoint of safety to the employees, physical examinations are not only absolutely essential, but should be required by the community for its own protection. No industry, because of its lack of oversight over its employees' physical condition, has a right to turn out men upon the community crippled and inefficient, to be more or less a public charge. Physical examinations pay from every point of view—safety, efficiency, humanitarian, and cold cash.

CALIFORNIA ASSOCIATED RAISIN COMPANY DENTAL SERVICE

By H. L. BROWNELL, D.D.S., Fresno, Cal.

THE medical supervision of the employees of the California Associated Raisin Company is conducted under the auspices of a self-organized, self-conducted organization on the part of the employees themselves. The plan was furthered by the earnest efforts of some of the officers of the company. The organization was effected under the Sun-Maid Welfare League, and the membership now is more than three thousand.

At first the League was intended to cover medical service only; but when the urgent need for dental care became apparent, this feature was included among the other benefits. It was at first thought not to be necessary to maintain a dentist at the plant and the plan was tried of putting out the work of dental prophylaxis, and necessary extraction, to dentists resident in the Valley near by the several plants. It was soon found, however, that the employees did not avail themselves of the service under this arrangement, and a plan was worked out through the cooperation of L. R. Payne, superintendent of the company, whereby the service was extended and was at the same time made more readily available to the employees.

A dental office was opened in connection with the medical clinic, and the author, as dentist in charge, spent three days a week there. Nothing but cleaning, extracting and the handling of emergency work was undertaken. Fillings, bridge work, etc., are all referred to outside dentists. The work includes a talk to each patient on oral hygiene before he is dismissed.

Recently the company erected a new plant, the new installation including a dental and surgical clinic. A registered nurse is in constant attendance. The dental clinic is unusually well equipped, its apparatus including a Ritter chair and engine, a Clark cuspidor, a Pelton and Crane electric sterilizer, wall bracket, and an enamel table to work from. Everything is finished in white.

Complete records are kept of the number of patients treated and the nature of the work which is done. In this branch the cases average ninety per month, which number includes about thirty extractions and twenty-five emergency treatments. Every patient coming in for treatment has his teeth thoroughly cleaned. The clinic is open from nine to twelve every Monday, Wednesday, and Friday for ten months during the year, the plant being closed usually from July 15 to September 15 of each year. The work is gradually being extended and has been of inestimable value in the general welfare work of the plant.

HEALTH WORK BECOMES PART OF INDUSTRY

The National Industrial Conference Board states in a recent report that health service in industry has become an integral part of the industrial organization. In a recent investigation made by the board, it was found that thirty-four plants, representing fifteen industries, employing 400,000 men, have introduced physical examination of workers to great advantage.

WILL ADDRESS MEETING

Dr. Max Kahn, director of laboratories, Beth Israel Hospital, and associate professor of biological chemistry, Columbia University, New York City, will address a meeting in the interest of the Illinois General Hospital on May 12, in Chicago.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
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THE HOSPITAL'S RESPONSIBILITY IN THE VENEREAL DISEASE PROGRAM

THE All-America Conference on Venereal Diseases, which met during the week of December 6-11, 1920, for the purpose of bringing together recognized authorities in the various fields of venereal disease control, and making possible a comparison and evaluation of the methods of venereal disease control employed in various parts of the world, went on record with the statement that:

"Hospitals should do their part in the program for the control of venereal diseases by recognizing them as serious diseases worthy of skillful diagnosis and treatment without discrimination."

It follows, therefore, that hospitals not only have a definite part in the program for the control of the venereal diseases, but are neglecting this responsibility when they fail to offer adequate facilities or openly, or in any other way, discriminate against venereal disease. And the conspicuous scarcity of beds for cases requiring treatment in hospital is simple evidence of failure in this responsibility.

As a matter of fact, general hospitals do accept many patients with gonorrhea and syphilis in an active stage, but on account of a complicated or intercurrent disease and not on account of the gonorrhea or syphilis. Therefore, they might just as well accept them as venereal disease patients.

It is necessary here to establish a clearer distinction between quarantine of infectious persons for sanitary and public health reasons, and custodial care for those who offend against the laws relating to prostitution and allied subjects. The general hospital is an institution rendering medical service to the sick of the community, and not one for custodial care of incorrigible individuals. Persons in the infectious stages of gonorrhea or syphilis, who refuse to observe the simple precautions required for the protection of the community, should be quarantined by public health authority while a menace, and should be given adequate treatment while in isolation. Individuals that offend against the criminal code belong in institutions established for their care and rehabilitation, where, again, they should be adequately treated for any existing disease or disability, including venereal disease. If, then, from the standpoint of the sanitary code, we exclude from hospitals those who require quarantine, and from the standpoint of the criminal code exclude those who require custodial care, we have left only a comparatively small percentage of patients that require admission to hospitals as sufferers from gonorrhea or syphilis.

Moreover, the medical profession is agreed that syphilis does not differ as a communicable disease problem from pneumonia or typhoid, and that in handling gonorrheal cases the hospital needs merely to consider the problem of the patient having an infectious discharge. Patients suffering from venereal disease are at times, and for various reasons, in serious need of bed care. They should be considered by the hospital under the same admission rules as typhoid or infected surgical cases. In general it may be said that gonorrhea and syphilis do not require anything more than the simplest precautions against infection. In the hospital that observes good technique, cross-infection rarely if ever occurs. Such cases as occur are due only to gross negligence, ignorance of the patient's condition, careless attendants, or some other preventable factor.

The Conference outlined the following special requirements for the care of venereal disease in the hospital to the best advantage of the patient and the hospital, and the furtherance of the venereal disease program:

1. Facilities for adequate concurrent disinfection such as are required in the case of pneumonia, tonsillitis, or typhoid fever; i. e., sterilization of dishes, utensils, etc., used by the patient, and disinfection of discharges and articles which may have been contaminated.

2. A ward dressing or operating room for examinations, dressings, and minor surgical procedures.

3. Such special instruments as are required in the ordinary practice of genito-urinary surgery and syphilology.

4. Employment on the staff of specialists or at least the best skill available in the community.

5. Adequate records, which should contain as a minimum amount of data the following: (a) census date; (b) data as to date of infection, geographical source of infection, social status of infected person, medical prophylactic measures used, if any; (c) concise but sufficiently definite data to support this diagnosis; (d) laboratory findings; (e) definite notes on treatment, progress, and conclusion of the case; (f) social data.

To further aid the program for venereal disease control, the Conference considered:

That there is no advantage in having a venereal clinic separated from a general clinic when the circumstances are such that a general clinic can be maintained.

That the advantages of having the venereal disease clinic operated in conjunction with other clinics and under the direction of a trained personnel are as follows:

1. It promotes recognition by the public that venereal

diseases are being dealt with exactly like other diseases; this is of great value in bringing about a proper attitude on the part of citizens in general toward the prevention and control of these diseases.

2. By placing the treatment of venereal diseases on a parity with that of other diseases it tends to establish a precedent for the admission of these patients to general hospitals on the same basis as other patients.

3. The treatment of venereal diseases in the same institution with other diseases promotes a better understanding on the part of young physicians, especially interns and medical students, regarding the importance of these diseases, and of the true relationship between them and other pathological conditions.

4. The cost of operating a venereal disease clinic is much less when combined with a general clinic where the services of consultants, attendants, and other personnel, laboratory facilities, complete medical and surgical equipment, quarters, and general utilities are available without commensurate increase in overhead expense. When the venereal disease clinic is maintained separately it is more difficult to obtain the services of internists, neurologists, ophthalmologists, etc.

5. More patients will seek treatment at the general clinic because: (a) Many patients are not aware that they are infected with venereal disease when they apply for treatment; (b) the established general institution is more likely to gain and hold the confidence of its patients; (c) the patient attending the general clinic is not thereby stigmatized as a venereal disease patient, as might be the case if he went to a clinic exclusively devoted to venereal diseases.

And to complete the hospital's responsibility in the venereal disease program, the basic principles of medical social service were declared essential to the efficient organization of venereal disease control work, and of value to:

1. The patient, through improving morale, removing obstacles to attendance at clinic, and sustaining the interest of the patient in continuing treatment.

2. The hospital and clinic, through aiding in administration, developing the efficiency, and broadening its scope as an educational center, and in helping to create a friendly spirit of service.

3. The community, through work concerned with the immediate control and elimination of individual cases, in addition to influencing by obtaining and aiding in the dissemination of information, the progress of the local venereal disease campaign in its broader aspects.

The social record sheet of the venereal disease patient should contain information that will be of assistance in: (a) doing "follow-up" work; (b) tracing contacts; (c) tracing sources of infection; (d) estimating the value of educational methods in vogue as part of an anti-venereal campaign; (e) demonstrating the social needs of the community, e. g., recreational needs, housing needs, industrial conditions, and the like; (f) demonstrating economic loss to various industrial and other units in the community; (g) demonstrating the distribution of infection; (h) demonstrating types of prostitution, extent of solicitation, etc.

The importance of venereal disease as a national menace is rapidly becoming known to the general public. In the specialized field of public health it has received recognition in the past few years as the greatest single health problem now confronting the country. The strategic position held by the hospital, and by the dispensary as a part of the hospital, has not been fully understood or appreciated by those engaged in the management and maintenance of the hospital from the financial, administrative, or medical point of view.

The opportunities of the hospital as a teaching institution in relation to the control of venereal disease are unlimited through the general patient population, through the non-professional employees, through the nurses' school, through the training of interns, through the post-graduate instruction of physicians, and through the research and experience gained by the attendant staff.

STUDY OF SYPHILIS CASES

Archives of Dermatology and Syphilology for March, 1921, has an interesting and valuable article by Drs. Udo J. Wile and C. H. Marshall. It is a study of 1,869 cases of syphilis in all stages. The routine lumbar punctures have been carried out upon these patients and the associated findings have been carefully studied. This number is about one-third of the total number of cases seen. They have been selected particularly with reference to correct diagnosis and have been accurately observed over a definite period of time.

As a result of this study the authors made the following conclusions:

1. The nervous system, if uninvolved as shown by the accepted criteria during the first months of infection, is seldom invaded later. A negative preliminary puncture followed by positive findings at a later date occurred in only three of several thousand cases punctured.

2. Of the several criteria indicating involvement, the increase of organic solids is found to be slightly higher than either cell count or the Wassermann reaction, the relative value being indicated in the order just mentioned.

3. A considerable degree of cerebrospinal involvement may be present in the latent period of syphilis without manifesting any signs or symptoms.

4. Such asymptomatic cases may become symptomatic later, and a study of the colloidal gold curve in these cases is of some value in estimating the ultimate prognosis of the case.

5. Comparing the large number of cases of primary and secondary syphilis in which positive findings are found, with the relatively small percentage of late neurosyphilis as compared to total syphilitic incidence, we must conclude that a large number of early cases are in the nature of meningeal roseola, which is transitory in its clinical aspects.

6. The interpretation of the lumbar puncture findings, particularly early in the incidence of the disease, constitutes a valuable guide in estimating the ultimate prognosis of the disease with regard to the integrity of the nervous system.

VENEREAL DISEASE CAUSES ACCIDENTS

One of the largest telephone and telegraph companies in the United States has discovered that compensative accidents that happen to its employees bear a marked relation to the incidence of venereal disease. A large proportion of accidents to linemen, for instance, has been found to mark the beginnings of locomotor ataxia, a diagnosis which is almost always camouflage for syphilis.

SOCIAL AND MEDICAL WORK COORDINATE

In all hospital social service work it should be remembered that this department is coordinate with and an aid to the medical division of the hospital. Social service work should be thought of as a therapeutic aid to the patient's welfare, helping him to return to civil life and fill his place in the community.

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.

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WHAT A LOCAL HEALTH CENTER MEANS

By MARY BEARD, R.N., Director, Instructive District Nursing Association, Boston, Mass.

"THE term 'health center' has been very loosely used as a name for everything from a milk station to a miniature health department. A real health center should be a complete health department. In a small city the health department should be the health center; in larger cities health centers should be established for the purpose of decentralizing official health activity and linking with it every agency carrying on public health activities within the area. It should also serve as a common headquarters in order to effect the closest cooperation with workers for sociologic and economic betterment.

"To operate successfully, the health center must have official status, and in addition to the diagnostic and dispensary facilities, the public health nurses and other official personnel, it should house the liaison officers, when necessary or advisable, from unofficial or voluntary agencies. It must be remembered that one of the most useful results made possible by a properly conducted health center is the creation of a real community spirit which will furnish the popular support necessary for success in public health work."[1]

The health center of which I wish to write is situated in a locality which may be described as a town of 23,000 inhabitants. On three sides it is adjoined by towns outside the metropolitan area and its only geographical connection with the rest of the city is by means of a narrow strip along its lower border.

There are quiet residential sections with comfortable homes, no homes representing enormous wealth, and none of abject poverty. There are a good many factories and the number is increasing. The men and women employed in the industries are, on the whole, well paid, their homes comfortable and not too crowded, and many have gardens. There are good shops, schools, churches. The water supply and sewerage system are excellent; the milk supply is as carefully protected as in the neighboring parts of Massachusetts, and there is the same police and fire protection and sanitary inspection.

The population is composed of American born families, many of whom have lived here for years, and a good number of foreigners, brought in by the industries. But the foreigners are for the most part thrifty, and ambitious to have good homes, and many now own their own. There are Italians, Poles, Lithuanians, some Jews, a few Syrians, and an occasional French or colored family.

There are in the town no hospitals (except two very small private ones), no clinics for diagnosis and treatment of minor illnesses, and the early correction of defects. Doctors are called only when there is definite illness and are discharged as soon as the acute stage is past.

The first connection which was made by the nursing association was in 1912, when this town was annexed to the city. The nurses of the association were giving nursing care to the policyholders of the Metropolitan Life Insurance Company in the city, and when P—— became a part of the city, this service was extended to its policyholders. The nurse went out from the central office of the association each day and had no office or place for supplies in P——. The following indicates the variety of appeals which were made to her. One day when she was hurrying along she was stopped on the street by a young Italian in deep distress. From his excited gestures and torrent of imperfect English, she gathered that a birth was about to take place. "Oh, Signora, she die, she die! I send for doctor, two three times. He no come. Oh, she die, she die!" There was, of course, nothing else to do but go, and she followed him across the fields and up through the woods. As they approached a tidy little house, the nurse anticipated the snowy, lace trimmed bed usually found in an Italian home. To her surprise, the man walked past the house to a shed in the rear, and there, in throes of labor, on a bed of straw, her eyes looking up in mute appeal, lay Tony's pet goat!

Effort to Arouse Local Interest

During the next three and a half years the work developed rapidly and a local committee was formed, which assumed the responsibility of interesting the people, locally. The policies governing the work were determined by the board of directors of the nursing association. Two members of each church, including the Jewish synagogue, were chosen as members of this committee, but this plan was discontinued later. The present committee does not place emphasis on church or creed, but its members represent varied community interests.

The health center which is being conducted in P—— took care of over 3,000 people last year, about 13 per cent of the entire population of 23,849. This figure covers all types of cases, acute and chronic medical, surgical, prenatal, maternity, dental, well baby, and well child.

In most instances there were at least two members of the family under care, while the other three members of the family (taking an average family) were of course seen and observed by the nurse. Therefore, it is esti-

1. Allan J. McLaughlin: Standardization of Municipal Health Organization; Public Health Report, p. 1035-1039; April 30, 1920.

mated that the nurses actually reached about 33 per cent of the entire population.

The running expenses during this period were around $15,000, of which 20 per cent was met by fees from patients and from an insurance company. The remaining expense was met by this association and a very active local committee. This expense amounted to $3.74 per person cared for. The entire expense per person cared for, had there been no collection of fees or insurance work, would have been about $5.00.

If the deficit which was met by the nursing association and the local committee had been met by the entire community, it would have amounted to about fifty cents a year per capita for the entire population.

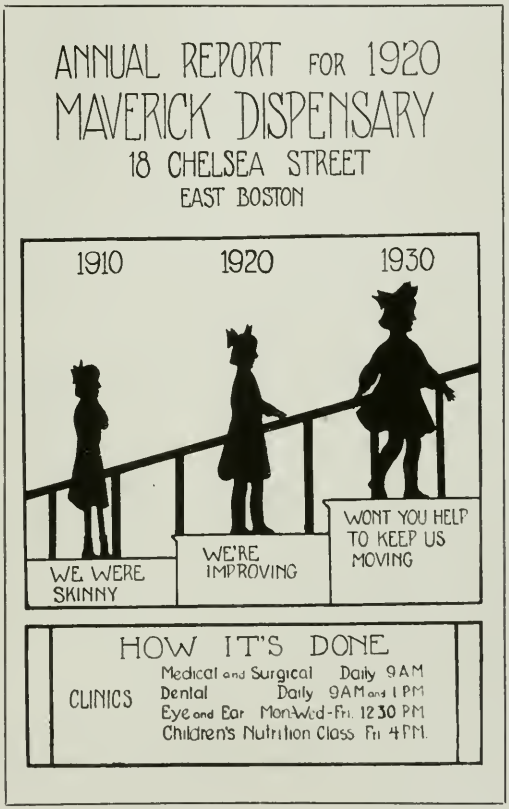
In 1916 the nursing work in P—— had developed enough to warrant establishing an office there. In December of that year an office was opened with one supervisor and four nurses. The outstanding health needs were prenatal and maternity nursing care for mothers and new-born babies, and a well baby conference with enough nurses to follow up the babies, visiting the mothers in their homes. These services were established. Prenatal nursing for patients under the care of any local doctor proved its value and grew steadily. In 1917 in P—— 1,134 prenatal visits were made, and in 1920 the number increased to 3,093.

At the baby clinic there is always in attendance a doctor who is a pediatric specialist, and he is paid a moderate fee for his service. One of the committee members has assumed the responsibility of attending each clinic and she is not only a great help to the nurses during this busy time, but gives an atmosphere of hospitality which the mothers are quick to appreciate. She has known some of them since they were children themselves, and she has a faculty for remembering the new ones. In speaking of the development of the clinic, she says: "My impression of the early clinics is that the mothers were mostly Italian, their babies swathed and bound in old world fashion. Now the mothers are of all nationalities and in some cases we are caring for the third baby. It is a rare thing now to see a baby in a long binder. I feel that the nurses are loved and looked upon as an authority in the community."

In 1917 a factory employing some one hundred and fifty men and girls asked the nursing association to supply a nurse one hour daily for first aid work and health instruction in the mill. This work continued without interruption to the present time, when shortage of work has closed the mill.

The nurses continued to feel the need of more facilities for dental care, for while the school nurses examined the teeth of the children in the public schools, above the second grade, the younger children and those in the parochial schools were not examined. The nearest clinics necessitated a long ride, changes of cars, and two carfares. In March, 1918, a dental clinic was opened in the station, a graduate dentist procured for three days each week, and two full-time dental hygienists.

In August, 1919, the dental clinic was resumed on a different basis. It was made available to any member of a family whose income did not exceed $4.00 per week per capita. No gold fillings or plates were attempted, and no work under anesthesia. The charges were very moderate, representing more than the cost price of the material, but not covering the amount paid the dentist. There was a little newspaper publicity for this, but most of the patronage was and still is secured through the personal work of the nurses in the homes. There was a splendid response from the first, parents welcoming the chance to get their children's dental work done at a price within their means and without paying two carfares. The nurses soon felt that the per capita rate was keeping out some families whose income did not permit a private dentist, and the board of directors raised it to $6.00. The dentist is busy two days a week and there are always appointments several weeks ahead.



The health activities of P—— have developed as rapidly as funds were available. The latest developments, made possible by a gift from the American Red Cross, are the maternity and hourly nursing services. These were started July 1, 1920, by the addition of two nurses to the staff. They live in the district and are available for maternity service day or night. The doctors have welcomed this service, but the best response has come from the patients themselves. The fee of $5.00 gives the patient the services of the nurse to assist the doctor at time of delivery. Subsequent nursing care is given by the regular district nursing service.

Recently there has been added a clinic for the older children called the Child Health Clinic. The clinic is held on the same afternoon as the Baby Health Clinic and at the same hour. A pediatrician is present and he is paid a small salary by the District Nursing Association.

He has with him one or more postgraduate medical students. The children are given a thorough physical examination, are weighed and measured, and their mothers advised. If they should become ill, they are subject to the policy which guides us in our conduct with all other ill children. That is, the district nurses make the proper connection between the family doctor and the sick child.

The daily planning of the nurses' work requires eternal vigilance and quick readjustments. With one group of nurses handling so many activities, it is so easy to overemphasize one at the expense of another. When Tommy Brown has pneumonia, it is not difficult to get so interested in him that the preventive and instructive work lapses a little.

The supervisor writes, "Yes, work in P—— is different and has many difficulties. We wish we had a diagnostic clinic, sometimes we wish we had a treatment clinic, or at least a 'free' doctor, and we very much want a pregnancy clinic. But we don't envy the other districts who have all these things, because we have a well baby clinic and a dental clinic and they haven't, and we do generalized nursing, and unless you have done it, you don't know how satisfying it is." Another thing that helps the supervisor is that the nurses do these varied and often difficult things as a matter of course. When asked for stories to illustrate the preventive character of their family work, they always say they have none, so much have the different activities become a part of their daily routine. The following story illustrates the opportunities which generalized nursing offers to the nurse for following out the myriad details necessary to procure or at least approach positive health in these families.

The nurse became acquainted with Mrs. D. through visiting John, who was a well baby a year old. Mrs. D. was not very responsive, as she felt John was doing very well. The nurse continued to call, and after a few visits she ventured to speak about the teeth of the older children. When she told about the dental clinic there was a quick response and Mrs. D. sent them for dental appointments at the clinic before the week was over. Then she became interested in the condition of her own teeth and with a little urging went to a private dentist, as the clinic dentist does not make plates. With the help of a relative she was able to pay for a set of teeth, and her general health has improved since. During this time she was becoming more responsive and followed the nurse's advice about John's diet. Later she told the nurse she was in the early months of pregnancy and was glad to receive the nurse's prenatal care. As she became better acquainted she told the nurse that Mr. D. was not well, that he lost a good deal of time from work and was cross and disagreeable. When the nurse talked with him she was convinced that he needed medical attention, but it took a long time to persuade him to go to a dispensary for examination. He finally went; a diagnosis of hemorrhoids was made, and he was successfully treated. He was also advised to take lighter work because of hernia. For a time he stubbornly refused to consider this, but when he finally consented it resulted in a small increase in salary. He is now working steadily, he has not lost a day in seven months. Incidentally, his disposition has improved and he is decidedly more agreeable. Happiness and self-respect have been increased as the health standard has been raised.

DISPENSARY ORGANIZATION

SUMMARIZED FROM THE FINDINGS AND RECOMMENDATIONS OF THE CLEVELAND HOSPITAL AND HEALTH SURVEY.

1. The final governing authority of the dispensary should be a board of trustees. If the dispensary is an out-patient department of a hospital, the board of trustees of the hospital will serve as such authority. No member of the board should be a member of the active or consultant medical staff of the dispensary. Dispensaries which are under a religious or public city or Federal organization and which cannot, therefore, have trustees, should appoint an advisory committee similarly constituted. In addition to the men members of the board of trustees, who represent chiefly financial, administrative, and broad public interests and experience, it is of much importance that there be included on the board of trustees a representative of some institution of higher education, viz.: university, normal, college, and women members whose experience and interest can be relied upon to contribute constructive ideas and opinions.

2. The appointment of the medical staff should be vested in the board of trustees. Appointment should be made for terms of one year, renewable by the board. The nomination should be made on the initiative of the board of trustees or of the medical staff or of an executive committee of the medical staff. The board of trustees should consult with the superintendent, or chief executive officer, before confirming the nomination of a medical staff, or of individual members thereof.

The following two paragraphs refer to dispensaries which are not parts of hospitals.

3. The medical staff should be definitely organized for the promotion of teamwork, common policies, and satisfactory relations with the administration of the dispensary. Regular meetings of the medical staff or sections thereof should take place for the discussion of professional work. There should be a medical executive committee composed of members of the medical staff, selected by the medical staff, or by the board of trustees on the nomination of the medical staff. The superintendent of the dispensary should be a member of this committee. The total membership of the committee should not be so large as to be unwieldy; seven members is generally the maximum desirable.

4. It is recommended that the board of trustees arrange for periodical conferences of designated members of the trustees, of the medical executive committee, the superintendent and administrative officers such as the heads of the nurses' service, and of the social service department. This joint group should meet periodically for the discussion of dispensary policies or administrative matters.

The following paragraphs refer particularly to dispensaries which are out-patient departments of hospitals.

5. The staff of the dispensary or out-patient department should be appointed according to the principles above laid down, and the physicians serving in the dispensary should receive definite recognition as members of the hospital organization and staff. For each department of the dispensary there should be designated a chief of clinic who should be under the general authority of the chief of the corresponding department of the hospital, but who should be directly consulted by the superintendent or the assistant superintendent who is in charge of the dispensary on all matters affecting the dispensary. The chiefs of the dispensary service should constitute a dispensary medical

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The exceptional purity of the talcum and its boric acid content justify the physician or nurse in specifying Colgate's when ordering an indifferent dusting powder for the sick room.

Professional packages sent on request if accompanied by professional card or letter-head.

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Colgate's Unscented TALC in 25 lb. cans.
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committee which, with the superintendent, the assistant executive in charge, and such others as may be designated, should meet from time to time on dispensary matters. It is suggested that a representative of the dispensary staff be a member of the medical executive committee.

6. It is desirable that the board of trustees of a hospital constitute a special committee, to be known as the dispensary, or out-patient, committee, of its own membership; or, if the board has no sub-committee system, one or more members of the executive committee should be delegated to have special responsibility in connection with the dispensary.

The following paragraph refers to both types of dispensaries.

7. There should be an executive head of the dispensary or out-patient department who, in the case of the dispensary unattached to a hospital, should be the responsible executive officer of the dispensary, and in the case of the out-patient department of a hospital, should have the rank of assistant superintendent of the hospital, and be responsible to the superintendent. He should have authority over all the administrative activities of the dispensary and should meet regularly with the dispensary medical committee and with the dispensary committee of the board, if there be such.

8. The medical staff, acting through the medical executive committee and the superintendent, should formulate a definite set of standards, subject to ratification by the trustees, for all professional work of physicians in the dispensary touching such matters as attendance, the making and supervision of records, diagnosis, use of laboratories, x-ray and other diagnostic aids, the interrelation of staff physicians and outside physicians, etc.

Social Service Department

The following paragraphs relating to the organization of a social service department of a dispensary, are taken from the report of the Committee on Hospital Social Service of the American Hospital Association printed in Hospital Social Service *for January, 1921.*

9. Organization—(a) As a fundamental general principle, social service should be organized as a department of the hospital, dispensary, or other institution. Assistance or participation by outside individuals or agencies in starting a social service department may well be accepted, but the department should be placed from the beginning, or the earliest possible date, under the complete administrative control of the trustees or other governing authority of the institution. No other arrangement can be deemed permanently satisfactory.

10. This form of organization implies the direct responsibility of the head worker of the department to the superintendent or chief executive officer of the hospital or dispensary.

Dispensary Organization

11. There should be an advisory committee for the social service department appointed by the board of trustees which should include representatives of the following elements: the trustees, the medical staff, professional social workers of standing in the community, non-professional laymen or women with experience or connection with social work or community problems, the superintendent of the institution, the superintendent of the training school; the head worker of the social service department should be an ex officio member of the committee.

This list is intended to be suggestive for the usual hospital organization. Under other circumstances, as, for instance, a social service department connected with a university, the advisory elements which should be brought together will readily suggest themselves.

12. The social service advisory committee should meet at regular intervals for the discussion of the problems and needs of the department, for hearing reports of its work, and for making recommendations to the trustees regarding the work itself. The trustees or superintendent should look naturally to this committee for aid in determining and guiding this relatively new branch of hospital activity.

13. As to finances, the social service department should be maintained as part of the hospital budget, and its funds, from whatever sources derived, should be administered through the usual hospital procedure. It is desirable that the immediate and overhead expenses of the department shall be so accounted for that its total cost can be readily ascertained, periodically reported, and divided between the hospital and the dispensary services.

REPORT ON VACANT BEDS IN PUBLIC HEALTH SERVICE HOSPITALS

Recent statements that the United States Public Health Service had 4,000 vacant beds in its hospitals while asking for more hospitals has brought out the following reply: "On February 19, the date of our last weekly report," said Surgeon General Cumming, "about 2,200 beds were vacant in our hospitals. Of these, about 1,200 were 'new' beds, in hospitals just opened or in additions to older hospitals; none of them were really in full working order. This leaves about 1,000 vacant beds, or 6 per cent of our total capacity of 17,394. This does not, of course, include our patients in rented beds in contract hospitals, who numbered 10,213.

"Six per cent leeway is a frightfully narrow margin on which to run any hospital; for any day, any hour, the hospital may be swamped by new patients. Particularly is this so in hospitals for soldier patients, a very large per cent of whom are continually asking for discharge or transfer to other hospitals, or leaving without formality. The turnover in our hospitals for the week was 2,274 admitted and 1,785 discharged.

"The six per cent does not of course refer to the same beds or to beds in the same hospital, city, state, or even section of the country. Almost any one of our hospitals may, and not infrequently does, run 20 per cent below on one day and 10 per cent over on the next, with the men sleeping in improvised beds till they can be transferred to other hospitals.

"The situation is made more difficult by the necessity of setting aside twenty out of our fifty-six hospitals for special troubles, twelve for tuberculosis patients, seven for neuropsychiatric patients, and one for epileptics. Such patients are of course not interchangeable.

"Another difficulty arises from the lack of personnel, especially of nurses, the demand for whom is everywhere pressing. In spite of its utmost efforts, the Service has been unable to recruit its corps fast enough to keep pace with the increase in its patients; and it is now about three hundred short. Without nurses, a hospital cannot be efficiently conducted; and the Service is continually being forced, now in this hospital and now in that, to keep down the number of patients or to render insufficient service to all.

"Similar shortage exists in the ranks of its reconstruction aides and its dietitians, all of whom, like its nurses, are women. Lack in these bodies, though not quite so vital, nevertheless means much to the health and the comfort of the patients."

Adv. page 42

Pituitary Liquid

is the perfect preparation of Posterior Pituitary active principle. It, too, is without preservatives—½ c. c. obstetrical, 1 c. c. surgical

Corpus Luteum

(Armour)

is true substance and will give results. Powder 2 and 5 gr. capsules and 2 and 5 gr. tablets.

Surgical Catgut Ligatures

Plain and chromic, regular (60 inch) emergency (20 inch) Iodized (60 inch).

Strong and sterile.

Page 277

An Incomparable Product

The Suprarenalin preparations are now available.

Suprarenalin Powder. . . . . 1-grain vials
Suprarenalin Solution, 1:1000. 1-oz. bottles
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Suprarenalin designates the astringent, hemostatic and pressor principle of the Suprarenal Gland as isolated by the Armour chemists.

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Hints to Hospital Superintendents

IMPROVING THE WALLS AND CEILINGS

Many superintendents who are doleful about the general lack of adaptability of their walls and ceilings to the needs and comfort of patients may welcome a few suggestions for improvisions and additions. If your paint is peeling off—of the operating room, for example—do not make the mistake of trying to make a new coat stick on the old poor coat. Poor paint will never hold good. Remember that the first may have been "patent paint." There is no special surface material to apply, even for operating rooms, in lieu of actually removing the old and putting on completely new layers of good enamel.

There is no cause for lament from managers of hospitals where cement floors already installed are frequently found inconveniently cold to patients' feet. Were the hospital just now in process of construction, with practically every available device to choose from, almost none better than the homely one of supplying rugs could be found. Putting in materials flush with the floor while the building is being constructed has the very grave disadvantage of rendering the wards or rooms impossible of rearrangement, for the beds must always stand in the same place. Small bedside rugs, about three by six feet, answer the need; are sanitary because they can be taken out and cleaned; and give an air of coziness to the ward.

Floors for operating rooms always present the double problem of necessitating a substance which can be quickly and easily mopped and will dry rapidly, but which will be impervious to fluids and micro-organisms. For superintendents who can remodel to some extent the small vitrified white tiles set in cement are the accustomed thing. These are practically impervious, especially when there is a cove base of art marble or terrazzo, the top of which runs flush with the wall surface. But there is absolutely no objection to regular six-foot battleship linoleum for this purpose. It must, of course, be well laid, cemented at every part, with joints sealed to the floor separately from the linoleum, with some very thin cement of shellac first put down. Linoleum in almost any color, fawn or yellow, perhaps, may be used now that administrators are keeping their hospitals clean whether the dirt shows or not.

CARE OF FIRE PUMPS

Fire appliances in hospitals should be kept under constant supervision to insure their working at the proper time. In the case of fire pumps, for instance, it should be ascertained by tests that the pumps are in condition for immediate service. Every pump should be started at least once a week, and water discharged through relief valve or other outlet. In the case of steam pumps, connections and traps should be kept in perfect order, and ample steam should be maintained at all times. In the case of electric pumps all wiring and connections should be thoroughly examined and tested. Special attention should be given to the heating of pump rooms, the temperature must not be allowed to fall to a point at which there will be danger of freezing. The ends of suction pipes must be kept clear of leaves or other refuse matter which might clog the holes in the strainers. The capacity of a pump may be greatly reduced by such a condition. Suction wells should be cleaned and intake pipes to the wells examined. There should be a good supply of lubricating oil always on hand.

STATE INSTITUTIONS CAN BUY OLEOMARGARINE TAX FREE

Superintendents of municipal, county, state, and government institutions should bear in mind the fact that they can buy uncolored oleomargarine, not subject to special tax or to the stamp tax on the colored product, and color it in the institution. This is made possible by a provision of Treasury Decision 3021, which says, "a state or an individual, who, as the agent of a state, colors or directs the coloration of oleomargarine for use in state institutions, such as asylums, hospitals, penitentiaries, and institutions of like character, is not subject to special tax imposed upon manufacturers of oleomargarine, or to the tax on oleomargarine colored and used in such institutions."

DRILL IS CHEAPER

A certain well-known superintendent was puzzled over frequent requisitions for new bed sheets. An investigation disclosed that many of the nurses were in the habit of making their own caps, gowns and aprons from sheets. His quick wit found a ready remedy for this condition. Instead of indelibly marking the sheets in one corner, the name of the institution, department, etc., was stamped in the center of the sheet. This ingenuity promptly stopped the purloining of the sheets, as a nurse would hesitate appearing in public with the name of the institution in the middle of an apron.

MAKE YOUR OWN DOOR PADS

In November, 1920, THE MODERN HOSPITAL, in its department of "Progress in Equipment and Operation," suggested an attractive kind of door pad, to replace the old fashioned pad of cloth. This new pad was one made entirely of leather, selected to match the color of the doors. There was a noose on one end which slipped over the outer knob, and a thong on the other end slipped over the inner knob. Another satisfactory door pad has been developed by taking worn hot water bottles and ice caps, cutting this rubber into the proper shape, and fastening it onto the door with tapes.

Adv. page 44

Appetite and Digestibility

No appetite means a slow digestion. What does not "make the mouth water" will not make the gastric juices flow easily. Food must be tempting.

Biscuits, muffins, cake, etc., made with

ROYAL Baking Powder

are both delicious and digestible because of their lightness, due to the strong leavening action of the powder.

They are, moreover, healthful because Royal Baking Powder is made from cream of tartar and adds to food the same wholesome qualities that exist in ripe grapes, from which cream of tartar is derived.

Food made with Royal Baking Powder possesses excellent keeping qualities and fine flavor, stimulating to the appetite and digestion as well.

Royal Baking Powder contains no alum

MEETINGS, CONVENTIONS AND CONFERENCES

OHIO HOSPITAL AND NURSING ASSOCIATIONS TO MEET JOINTLY

THE Ohio Hospital Association, the Ohio Nurses Association, and the Ohio League of Nursing Education will hold a joint meeting in Cleveland, May 16-20. The idea in having this joint meeting is an attempt to combat the growing tendency on the part of a great many of these three groups to divorce themselves from one another. It is felt that a joint meeting in which common problems can be discussed on a common ground may do much toward clearing up the difficulties.

The first two days will be confined to the Ohio Hospital Association, the third day will be a joint meeting with the two nursing groups, and the last two days will be devoted entirely to nursing matters.

MR. P. W. BEHRENS
President, Ohio Hospital Association, Superintendent, Toledo Hospital.

On the first day there will be the address of the president, Mr. P. W. Behrens, and an address on hospital records, by Mr. Raymond F. Clapp. Hospital social service will be the subject of addresses on Tuesday, by Miss Malvina Friedman and Mr. Michael M. Davis.

On Wednesday joint problems will be discussed by Dr. A. C. Bachmeyer, Miss Grace Allison, and Mr. H. G. Yearick. The latter two speakers and others will address the meeting during the last two days, which will be concerned with nursing problems.

OHIO HOSPITAL ASSOCIATION PROGRAM.

Monday, May 16, 1921.

Morning Session—10:00 A. M.

Registration.
Meetings of Committees.
Inspection of Commercial Exhibits.

Afternoon Session—2:00 P. M.

President's Address—P. W. Behrens, Toledo Hospital, Toledo.

Report of Secretary—F. E. Chapman, Mount Sinai Hospital, Cleveland.

Paper—"What does Proper Recording of Hospital Performance Mean, and What are Its Benefits," Raymond F. Clapp, Assistant Director, Welfare Federation of Cleveland.

Discussion—From the Small Hospital's Viewpoint, C. F. Holzer, M.D., Gallipolis. From the Point of View of the Department of Health, H. G. Southmayd, Columbus.

Inspection of commercial exhibits.

Evening Session—8:00 P. M.

Paper—Mr. Creviston of the American Legion.

"The Application of the Minimum Standard and Plans for the Future," Judge Harold M. Stephens, Chicago.

"The Development of the American Hospital Association and the Geographical Sections," A. R. Warner, M.D., Executive Secretary.

Tuesday, May 17, 1921.

Morning Session—9:00 A. M.

Round Table on Administrative Problems—9:00 to 12:00 A. M.

Conducted by Guy J. Clark, Cleveland.

9:00-9:30—Purchasing. Conducted by Elsie Druggan, Mansfield.

9:30-10:00—Housekeeping. Conducted by C. B. Hildreth, Cleveland.

10:00-10:30—Accounting and Records. Conducted by Sister St. Simon, Toledo.

10:30-11:00—Mechanical and Laundry. Conducted by Mary A. Jamieson, Columbus.

11:00-11:30—Dietary. Conducted by

Afternoon Session—2:00 P. M.

"The Development of Hospital Social Service," Malvina Friedman, Directress of Social Service, Mount Sinai Hospital, Cleveland.

"What is Real Hospital Service," Michael M. Davis, Jr., New York.

Inspection of Commercial Exhibits.

Evening Session—7:00 P. M.

Dinner—Some prominent speaker on an unrelated subject.

Wednesday, May 18, 1921.

Morning Session.

New Business.

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"America's Most Famous Dessert"

AMERICA'S MOST FAMOUS DESSERT
JELL-O
A MIXTURE
SPECIAL PACKAGE
MAKES FOUR QUARTS
RASPBERRY
PURE FRUIT FLAVOR
VEGETABLE COLOR
This package makes four quarts of Jell-O. Serves forty to fifty persons according to size of portion.
Dissolve the contents of the package in four quarts of boiling water and set in a cold place to harden
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Our institutional size package represents the same standard of quality that has made our product such a favorite for so many years.

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MISS LAURA LOGAN
President, Ohio State Association of Graduate Nurses, Principal of the School of Nursing, Cincinnati General Hospital.

Report of Audit Committee.
Report of Resolution Committee.
Report of Committee on Time and Place.
Report of Nominating Committee.
Election of Officers.
Adjournment.
10:00—Joint Meeting with Ohio State Association of Graduate Nurses.
"The Necessity for Correlated Effort in Hospital Administration," A. C. Bachmeyer, M.D., Superintendent, Cincinnati General Hospital.
Discussion—From the Principal, Grace E. Allison, R.N., Lakeside Hospital. From the Superintendent, H. G. Yearick, City Hospital, Akron.

Afternoon Session—2:00 P. M.

Round Table on Correlated Hospital and Nursing Problems.
2:00 to 3:00—E. R. Crew, M.D., Superintendent, Miami Valley Hospital, Dayton.
3:00 to 4:00—Daisy Kingston, R.N., City Hospital, Fremont.

PROGRAM OF OHIO STATE ASSOCIATION OF GRADUATE NURSES.

Wednesday, May 18, 1921.

Joint Session with Ohio Hospital Association.
10:00 A. M.—Paper: "The Necessity for Correlated Effort in Hospital Administration," A. C. Bachmeyer, M.D., Superintendent, Cincinnati General Hospital.
Discussion—From the Principal, Grace E. Allison, R.N., Principal, Lakeside Hospital School for Nurses, Cleveland. From the Superintendent, H. C. Yearick, Superintendent, Akron City Hospital.
2:00 P. M.—Round Table on Correlated Hospital and Nursing Problems:
2:00 to 3:00—E. R. Crew, M.D., Superintendent, Miami Valley, Hospital, Dayton.
3:00 to 4:00—Daisy Kingston, R.N., Superintendent, Memorial Hospital, Fremont.
7:45—Meeting of Board of Trustees, Ohio State Association of Graduate Nurses.
8:45—Advisory Council Ohio State Association of Graduate Nurses.

Thursday, May 19, 1921.

8:00 A. M.—Registration.
8:30—Executive Committee, League of Nursing Education.
9:00—Business Session, State Association.
11:00—Business Session, League of Nursing Education.
12:00—Registration.
1:30-3:30 P. M.—Private Duty Section.
Paper: Private Duty Nursing from a Layman's Point of View.
Paper: Private Duty Nursing from a Physician's Point of View.
Discussion.
3:30—Tea at the Nursing Centre, followed by an automobile ride over the city.
8:15—General Session.
Music by Nurses' Chorus.
Address of Welcome: Mrs. John H. Lowman, Cleveland.
Response: Laura E. Logan, R.N., President, Ohio State Association of Graduate Nurses.
Response: Claribel A. Wheeler, R.N., President Ohio State League of Nursing Education.
Paper: Relation between Medical and Nursing Professions.
Paper: Relation of a School of Nursing to the Hospital.
Paper: Relation of the Nurse to the Public, James E. Cutler, Dean of School of Applied Social Sciences, Western Reserve University.

Friday, May 20, 1921.

8:00 to 9:00 A. M.—Round Table: Instructors in Home Hygiene, conducted by Jean Anderson, R.N., Director, Bureau of Instruction, Lake Division, American Red Cross.
8:30—Registration.
9:00—League of Nursing Education.
Paper: "Health and Recreation of Student Nurses," Lillian Hanford, R.N., Principal, Miami Valley Hospital School for Nurses, Dayton.

MISS CLARIBEL A. WHEELER
President, Ohio State League of Nursing Education, Principal, Mount Sinai School for Nurses.

Adv. page 48

Lowest Prices in Country—Highest Quality

An unparalleled combination that stamps our

Surgeons' Gowns

as the best values to be had! But we do not ask you to accept them on "faith." Mail us your orders for whatever assortment you are interested in. We will ship, charges prepaid. Then examine carefully—compare the quality and compare prices. If not satisfied that we offer the **maximum**—more, in fact, than can be had elsewhere—then return shipment collect and no questions will be asked.

Our label is not put **on** a garment until the quality has been put **in!** The cloth, the workmanship, the fitting qualities, the comfort—all mark our Surgeons' Gowns as perfection, insofar as the human hand and human mind are capable of producing perfection.

Surgeons' Gowns

(Small, Medium, Large)

Snappy, shapely gowns recommended for long service. Resist chemical action and blood stains. Positively the best money can buy.

No. 846 Heavy Indian Head, 60 in. long. Long sleeves. New price, per doz...$18.00
No. 847 Pepperell Jeans or Duretta Cloth. Same style as No. 846. New price, per dozen $18.00
No. 845 Nurses' Operating Gowns. White Duretta Cloth. New price, per doz...$18.00

Patients' Bed Gowns

(Small, Medium, Large)

No. 28 Pepperell Cloth, double yoke front; wide hems and tapes in back; open all way down. 36 in. long; long sleeves. New price, per dozen.....$13.50
No. 128 Indian Head. Same style as No. 28. New price, per dozen.....$13.50

Nurses' Uniforms *(regulation form-fitting)*

Distinctive, well-tailored; attractively style;—offering the very utmost in quality and service. High-low neck; 4 in. hem on skirt; open sleeves; 3½ in. cuff; waist line belt; pocket on waist and skirt. Sizes 36 to 46.

No. 175 Blue Chambray. New price, per dozen.....$27.00
No. 383 Dark Blue Striped Amoskeag Gingham. New price, per dozen.....$27.00
No. 174 White Pepperell. New price, per dozen.....$30.00
No. 475 White Duretta Cloth. New price, per dozen.....$36.00

Prices subject to change without notice

THE HOSPITAL NURSES' UNIFORM MFG. CO.

410-412 Elm St. *Cincinnati, O.*

Discussion: Laura Grant, R.N., Principal, Cleveland City Hospital School for Nurses.

Paper: "State Board Examinations," Ida May Hickox, R.N., Chief Nurse Examiner, Ohio.

Discussion: June Ramsey, R.N., Assistant Principal, Lakeside Hospital School for Nurses, Cleveland.

Paper: "Factors which determine the Equivalent to a High School Education," Mrs. Norma Selbert, R.N., Assistant Professor of Public Health Nursing, Ohio State University.

Discussion: Melisse Wittler, R.N., Superintendent of Nurses, St. Luke's Hospital School for Nurses, Cleveland.

11:30—Play Hour.

12:00—Registration.

1:30 P. M.—Public Health Section.

1:30-3:30—Round Table: School Nursing in Urban and Rural Districts, Ethel Osborn, R.N., Superintendent of School Nurses, Cleveland; Alice Squire, R.N., Red Cross Public Health Nurse, Lucas County.

1:30-3:30—Round Table: Industrial Nursing, Caroline Hilliard, R.N., Superintendent of Nurses, Goodrich Tire and Rubber Co., Akron, Ohio.

3:30—Closing Business Session State Association.

4:30—Closing Business Session League of Nursing Association.

8:15—Public Health Section.

8:15-9:15—Round Table: Nutritional Classes for School Nurses, Vivian Reamer, B.Sc., Household Educator, Toledo District Association.

9:30-10:30—Round Table: Tuberculosis Nursing, Cora M. Templeton, R.N., Director of Nurses, Department of Health, Cleveland; Cora Schmees, R.N., Public Health Nurse, Hamilton County.

ILLINOIS ASSOCIATION DISCUSSES NURSING PROBLEMS AND HOSPITAL RECORDS

The annual meeting of the Illinois Hospital Association was held in Chicago, on March 18. After the reading of the minutes by the secretary, Dr. E. T. Olsen, the president, Dr. M. L. Harris, made a report of the activities of the Association during the past year. Various meetings of the executive committee were held to consider matters which came up from time to time. Among them were questions concerning the intern year, and also the rules regulating training schools for nurses. The president and the secretary of the Association, at a conference with the Governor of Illinois, the Director of the Department of Registration and Education, and the Superintendent of Registration, presented the arguments of the hospitals against certain rules of the Department of Registration and Education, with the result that the following changes in the rules were made. Hospitals may conduct a two year training course for nurses. The Department cannot require a "qualifying certificate" except when the nurse is applying for registration. The Department cannot require graduate nurses employed by hospitals as superintendents of nurses, supervisors, or in any other capacity, to be registered, nor can it set the educational requirement of one year of high school work except as a qualification for registration. There will be in the diplomas of those graduates who have not fulfilled this educational requirement a clause to the effect that the graduate is not qualified for registration at that time. The clause will read simply, "Registration qualifications incomplete," on in a similar way, so as not to reflect on the nurse or the training school from which she is graduated. The Department cannot discriminate against schools graduating such nurses. The minimum curriculum requirement of 325 hours was excluded from the rules, as it was obvious that the same number of hours could not be required for two years as for three years of training. The Association established a minimum of 235 hours for the two years course, which has the approval of the Illinois State Medical Society.

The secretary then made a report of work done during the year. A questionnaire was sent out to the hospitals of the state for the purpose of collecting some information on the question of the two year training course. Answers were received from only sixty-three hospitals; of these, twenty were conducting a two year course, thirty-eight a three year course, two were organizing schools, and three were without training schools. Of the three year training schools, only five had a sufficient number of nurses, and of those five, three were having difficulty in keeping enough. Of the schools having two year courses, ten had their full number of pupils, and only one was having difficulty in keeping up its supply. It was found from the questionnaire that the cash and other allowance made to nurses had apparently no effect on the number of pupils attracted to the school.

A general discussion followed, the chief part of which was concerned with hospital records. Various questions were opened up as to why records are kept; are they kept for the protection of the hospital only; has the hospital a right to give out information from these records; if not, who has the right—the physician or the patient; the advisability of keeping the old fashioned "full record," or cutting it down to the short record, confined to points bearing directly on the case; the question of whether the physician or the intern should keep the record, and if the latter, how the physician can be persuaded to read it over. Dr. C. U. Collins of Peoria proposed a resolution to the effect that the Association believed the hospital has a right to a sufficient record to protect itself; Dr. Pettit of Ottawa suggested that the hospital be defined from the legal and ethical standpoint.

President Harris gave his view of the legal status of the question of histories; the patient, in his judgment, has the only right to the history, or to give out information concerning it; when the physician receives the history from the patient it is strictly confidential. The hospital is entitled to keep a record of what is done to or for the patient while in the hospital, for which the hospital is responsible, including a record of the patient's entrance and departure, setting forth condition, results, etc. It was decided that the resolution had been framed too hastily, and it was withdrawn. Dr. Collins then made a motion that a committee be appointed by, and including, the president to draw up a resolution defining the rights of the hospital in the question of record keeping. The motion was carried.

The following officers were elected for the year 1921: President, Dr. M. L. Harris; vice-president, Dr. William L. Noble; treasurer, Dr. C. O. Young; secretary, Dr. E. T. Olsen; trustees, Mr. William J. Rathje, Chicago; Dr. Emil Ries, Chicago; Dr. Martin M. Ritter, Chicago; Dr. C. U. Collins, Peoria; and Dr. J. H. Franklin, Spring Valley.

WISCONSIN HOSPITAL ASSOCIATION ISSUES TENTATIVE PROGRAM

The next meeting of the Wisconsin Hospital Association will be held in Kilbourn and Walker Halls, Milwaukee Auditorium, May 25 and 26, 1921. The tentative program follows:

Invocation.

Address of Welcome.

President's Address.

Report of Executive Secretary and Treasurer.

Unfinished Business.

Problems of the Training School—Sara Parsons, R.N., Kansas City, formerly superintendent of nurses, Massa-

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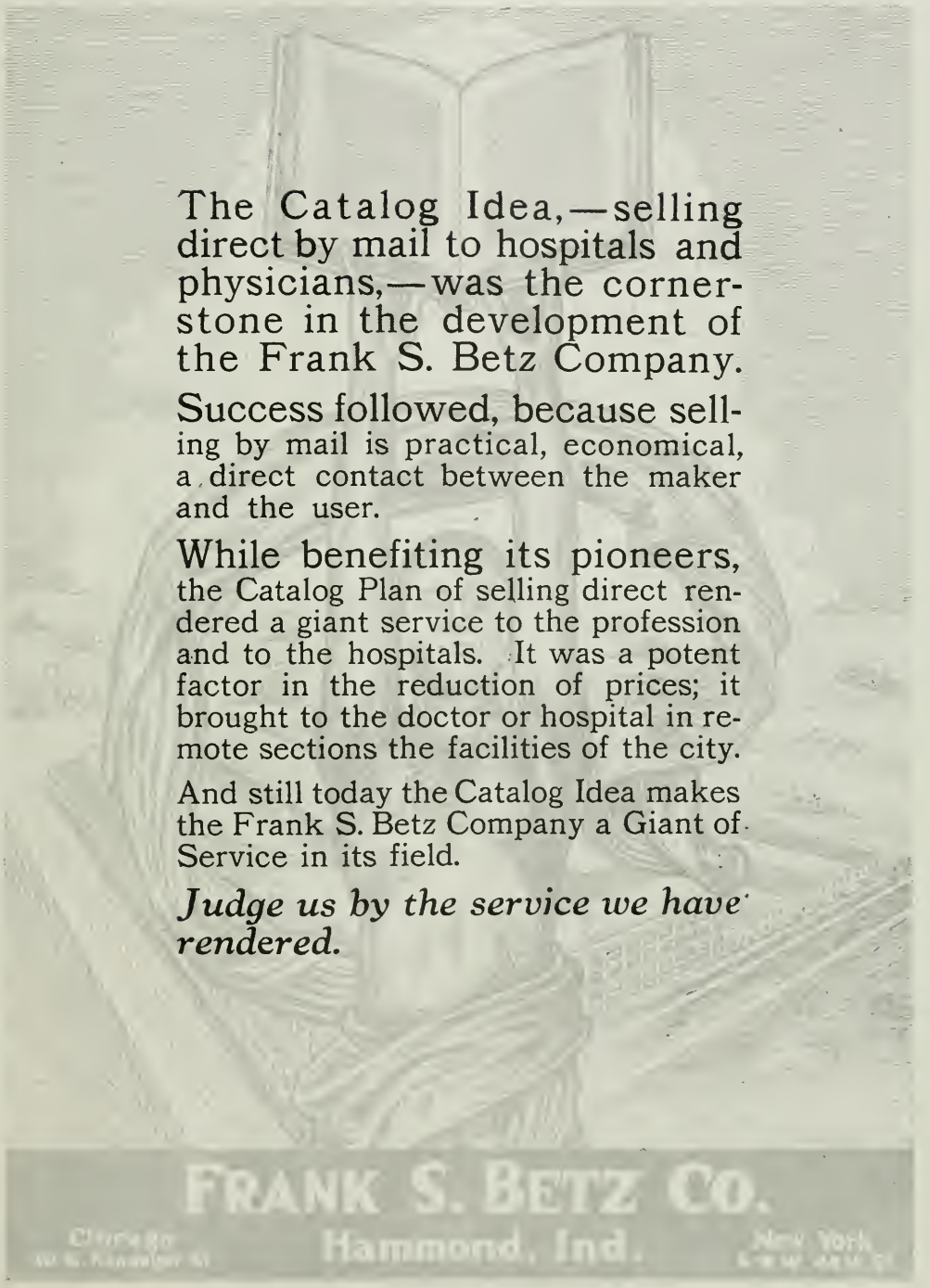
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chusetts General Hospital. Now making a survey of the training schools of the State of Missouri.
Discussion.
Adjournment, 12:30.

GROUP LUNCHEONS—12:30 TO 2:00

Hospital Executives, University Club.
Training School Executives, City Club.
Dietitians and Stewards, Milwaukee Athletic Club.
Anesthetists, City Club.

AFTERNOON SESSION—2 P. M., WALKER HALL

The Anesthesia Problem of the Hospital—Isabella C. Herb, M.D., Rush Medical College, Chicago.
Discussion.
Financial Management of the Hospital—Frank E. Chapman, superintendent, Mount Sinai Hospital, Cleveland, Ohio.
The Institutional Laundry—Innovations and Economies—W. T. Williams, editor of the National Laundry Journal, Chicago.
Hospital Architecture, with Special Reference to Interior Arrangement—Perry W. Swern, of Berlin, Swern and Randall, Chicago.
Discussion—Frank E. Chapman.
Adjournment.

BANQUET—7 P. M., HOTEL PFISTER

This banquet will be attended by the members of the association, and it is especially desirable that hospital trustees and other lay people interested in hospitals be present.

Speaker of the evening—William J. Mayo M.D., Mayo Clinic, Rochester, Minn.

THURSDAY MORNING, MAY 26, 9 A. M.

Election of Officers.
Reports of Committees.
Address by representative of the American Hospital Association.
Address by representative of the American College of Surgeons.
Recent Advances in Occupational Therapy—Russell Bird, director of crafts, Wisconsin Psychiatric Institute, Mendota, Wis.
Round Table on Hospital Administration—Conducted by Asa Bacon, superintendent, Presbyterian Hospital, Chicago, treasurer of American Hospital Association.
Assisting Mr. Bacon—Amelia Olson, R.N., Luther Hospital, Eau Claire; S. M. Smith, M.D., Hanover Hospital, Milwaukee; H. K. Thurston, Madison General Hospital, Madison; Miss Schoolbred, R.N., Ashland Hospital, Ashland; Hannah Paulson, R.N., Wisconsin Deaconess Hospital, Green Bay; Mrs. G. A. Hipke, Milwaukee Maternity and General Hospital, Milwaukee; Sister M. Seraphia, C.S.A., St. Agnes Hospital, Fond du Lac; J. W. Coon, M.D., River Pines Sanatorium, Stevens Point; J. K. Goodrich, M.D., River View Hospital, Wisconsin Rapids; Agnes Reid, R.N., Bradley Memorial Hospital, Madison, Wis.; J. H. Bauernfriend, M.D., Monroe; Ella B. Smith, Wausau.
Adjournment.

LUNCHEON

AFTERNOON SESSION—2 P. M., WALKER HALL

Medical and Hospital Program of the University of Wisconsin—C. R. Bardeen, M.D., dean of University Medical School.
The Outdoor Department—How It Can Best Serve the Community and the Hospital—John E. Ransom, superintendent, Michael Reese Dispensary, Chicago.
Discussion.
Outline of Efficient Case Record System, Applicable to Both Small and Large Hospitals—E. Moerchen, record clerk, St. Joseph's Hospital, Milwaukee.
Discussion.
The Status of the Dietitian—Necessary Qualifications and Training—Prof. L. D. Harvey, president, Stout Institute.
Adjournment.

NATIONAL TUBERCULOSIS ASSOCIATION WILL MEET IN NEW YORK

The seventeenth annual meeting of the National Tuberculosis Association will be held at the Waldorf-Astoria, in New York City, June 14, 15, 16, and 17, 1921. The meeting will be immediately following that of the American Medical Association, at Boston, and preceding that of the National Conference of Social Work, to be held in Milwaukee beginning June 22.

The chairman of the advisory council is Dr. Haven Emerson, Washington, D. C. Some of the other sections and their chairmen are: the clinical section, Dr. James A. Miller, New York City; the pathological section, Dr. Simon Flexner, New York City, there will be a joint session of the clinical and pathological sessions; sociological section, Dr. George Eaves, Birmingham, Ala.; nursing section, Miss Mary A. Meyers, R.N., Indianapolis. The American Sanatorium Association, of which Dr. Lawrason Brown, Saranac Lake, N. Y., is the president, will meet on June 14; the National Conference of Tuberculosis Secretaries, of which Dr. Edward Hochhauser, New York City, is the president, will meet on June 15.

CATHOLIC HOSPITAL ASSOCIATION TO HOLD 1921 CONVENTION IN ST. PAUL

The sixth annual convention of the Catholic Hospital Association of the United States and Canada will be held at St. Thomas College, St. Paul, Minn., June 21, 22, 23, and 24. The duration of the convention has been increased to four days in order to allow more time for conferences, of which there will be fourteen, representing the various phases of hospital activity. An entire day, Thursday, June 23, will be devoted to these, and the morning session of Friday, June 24, will be given up to reports and discussions of the work accomplished by the different conferences of Thursday. One session of the convention will consist of papers and discussions that will be of special interest to the hospital doctors. The enthusiasm thus far manifested indicates a record attendance and important accomplishments for still further progress in the Association's plans.

OKLAHOMA HOSPITAL ASSOCIATION ANNOUNCES PROGRAM

The Oklahoma State Hospital Association will meet at McAlester, on May 18, 1921. There will be an address by the president, Dr. Fred S. Clinton, Tulsa, Okla., an address by Dr. C. M. Rosser, professor of surgery, Baylor University College of Medicine, Dallas, Texas, on "More Hospitals, Bigger and Better Hospitals, a Health Necessity," and one by Dr. LeRoy Long, dean and professor of Surgery, Oklahoma University Medical College, Oklahoma City, "Some Remarks on the Functions of the Hospital."

Danville State Hospital for the Insane, Danville, Pa., is contemplating the addition of a nurses' home to cost about $40,000, and an infectious disease hospital to cost $45,000.

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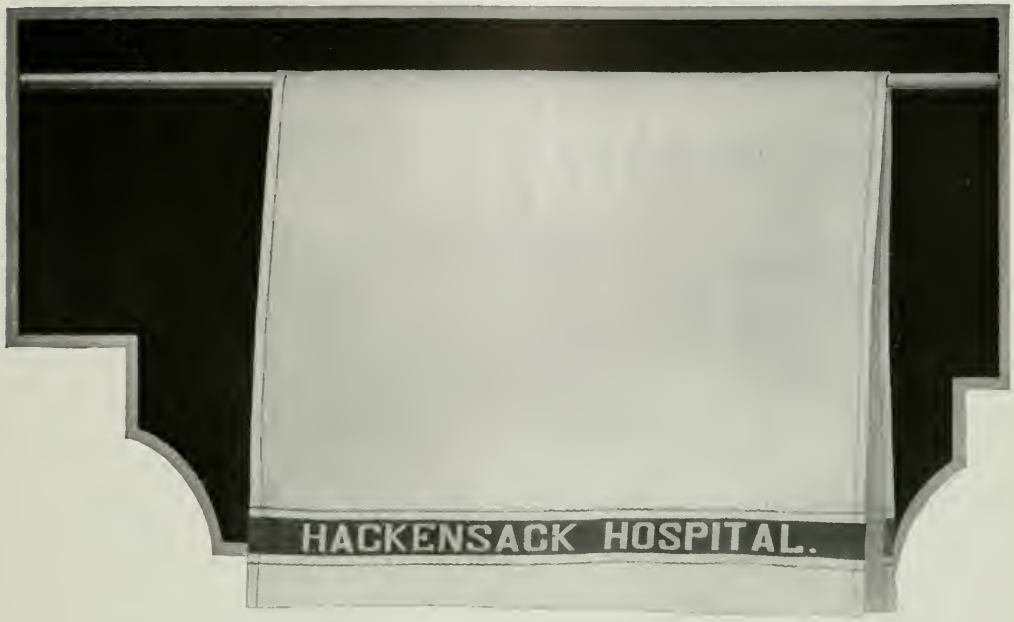

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QUERIES AND ANSWERS

INFIRMARIES AND ALMSHOUSES

To the Editor of THE MODERN HOSPITAL:

Shall almshouses be conducted as infirmaries so as to solve the problem of a place for the "chronics," utilizing the inmates for the care of the others, with medical and nursing supervision? It is becoming impossible to hire employees to care for such objectionable cases.

SUPERINTENDENT OF AN ISOLATION HOSPITAL.

THE MODERN HOSPITAL referred this question to the deputy commissioner of charities and corrections of Westchester County, New York, who says: "There are so many elements to this question that it cannot be properly answered by a mere 'no' or 'yes.'

"When the new county home in Westchester, N. Y., was planned, arrangements were made for six wards for chronic hospital patients that would accommodate about one hundred and forty. These infirmary wards had all the modern hospital equipment facilities. About the first of November we shifted the almshouse and hospital population so now the infirmary wards have become part of the General County Hospital. The shift was made in order to use the new and better equipped building for the rapidly increasing hospital demands of the county, since we found the old hospital plant quite adequate for the somewhat depleted population of the county home, excluding the infirmary patients.

"I. Our experience has convinced us that infirmary patients, if housed in properly equipped wards in connection with the home, can be more economically maintained than as a part of a general hospital. This is because the home always affords considerable labor that can be utilized in many ways, which makes unnecessary the employment of as many paid people as are required when the infirmary becomes part of the hospital, and there is none of this labor available.

"II. In actual practice I think it will be found more difficult to maintain desirable standards of caring for the infirmary patients when their wards are part of a home, since there is an inevitable tendency to utilize almshouse labor, which is often very inferior and not dependable. Such an arrangement also tends to make the public feel that the infirmary is for patients primarily because they are dependent, whereas it is more desirable to have the public realize that an infirmary is more useful if it is understood that people go there because they are sick and infirm rather than because they are dependent. We have found quite a demand for infirmary service from people who do not want to accept charity but cannot afford to pay over two dollars a day, and frequently much less. In normal times, infirmary service can be furnished in a large unit for from seven to ten dollars a week.

"III. In operating an infirmary as part of a general hospital, I find a tendency among the doctors to give their time to the surgical and acute cases to the extent of sometimes approaching neglect of these chronic cases. It is difficult to maintain enthusiasm among the hospital staff for this chronic service.

"IV. While it will probably cost more money to maintain infirmary service in connection with the hospital, I do think such arrangements very advantageous, since it affords the infirmary patients all the facilities of hospital service in the way of laboratories and x-ray equipment, and some attention from a visiting staff. It is easier to maintain a higher standard of service in the hospital where the whole organization has the idea of caring for the sick. In an almshouse or home the staff is less apt to be interested in medical treatment than in maintaining an acceptable appearance as a home.

"In summarizing, I wish to assure you that infirmaries can be well conducted in either a home or hospital, since, as usual, it all depends upon the management. As a general principle, however, I think that incorporation of infirmaries as a part of a general hospital will work out to the advantage of the patients, although they will probably cost a little more."

EXTERMINATING VERMIN IN CREVICES

To the Editor of THE MODERN HOSPITAL:

As we are about to have the interior of our building painted, could you suggest what chemical or poison might be mixed with the paint to help in the complete extermination of flies and other pests found in cracks and crevices? MEDICAL DIRECTOR AND SUPERINTENDENT.

We have secured authoritative information that there are no chemicals at the present time that would be of any value in a paint to help in the extermination of flies and other pests. However, inasmuch as an air-tight film forms over any object that is painted, we believe that, in itself, would exterminate any vermin present and it should not be, therefore, necessary to use an exterminator.

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FOOD SERVICE FOR NURSES

To the Editor of THE MODERN HOSPITAL:

Do you consider the cafeteria system for nurses desirable? HEAD OF NURSES' HOME.

Cafeteria service for nurses is far better than mediocre maid service, but we cannot believe that cafeteria service three meals a day, three hundred and sixty-five days a year, is a desirable thing in a nurses' home. There is no question that it is economical in food and service. We believe the nurses like it better than the average service given in a nurses' dining room, but if they were asked to choose between waitress service or cafeteria service, there is no question in our mind as to which they would choose.

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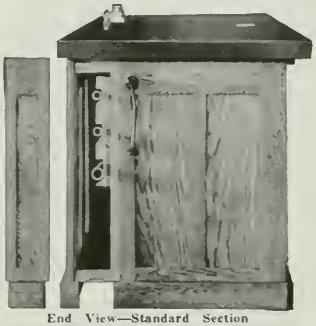

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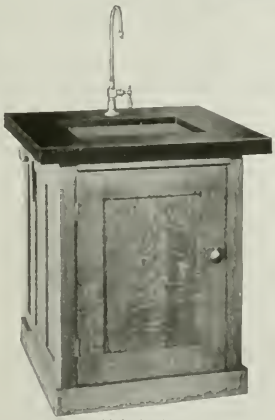

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Book Reviews and Current Hospital Literature

CLEVELAND STUDIES ITS HOSPITAL AND PUBLIC HEALTH FACILITIES*

CONSTRUCTIVE SUGGESTIONS FOR HOSPITALS AND DISPENSARIES

By JOHN E. RANSOM, Michael Reese Dispensary, Chicago, Ill.

The purpose and scope of this study of hospitals and dispensaries, which comprises Part 10 of the Cleveland Hospital and Health Survey, is stated by the author as: "an endeavor . . . to review the details of the work of the hospitals and dispensaries of the city, in their medical, administrative, and financial aspects, and to consider also the relation of these institutions to the various sections of the public which use them or need to use them." A quantitative appraisal of Cleveland's hospital facilities showed that, in relation to the population served by its hospitals, it has two and eight-tenths hospital beds per 1,000 population, falling far below New York, Boston, and other large cities. There are still greater inadequacies in provision for special types of patients and for children. Geographical distribution of hospitals and dispensaries showed the same lack of early planning as is found in most centers of population.

Many hospital needs, most of which are not peculiar to Cleveland institutions, are noted. Among these are the need for greater public interest in publicly controlled medical institutions, more nurses, especially in public hospitals, greater wisdom in the selection of members of boards of trustees, better records and statistics, better publicity, greater appreciation of the fact that unless the hospital obtains the cooperation of the patient it usually fails to give him its best service or to secure for itself the best response from the community of which the patient is a member.

In relation to the work of Cleveland's dispensaries or out-patient departments, the Survey makes the following general statement of needs: (1) more work to be done; (2) better executive direction through the assignment of a definite officer to be in charge of the dispensary, under the superintendent; (3) representation of the out-patient department so as to secure better recognition of it by the hospital authorities; (4) paid assistants for the medical staff (social workers, nurses, clerks,) so as to relieve the physicians of non-medical drudgery and improve the grade of service to patients; (5) better records, which would largely be accomplished by the assistants just mentioned; (6) better plants and equipment. Cleveland, like most other cities, suffers from lack of any general plan for dispensary service. The different clinics are not coordinated with one another or with the public health and charitable agencies. It is essential to have a plan, and effective organization, whereby the work of existing dispensaries shall be improved and the new dispensaries be established in sections of the city now unprovided for. But above all, the aim must be to furnish a basis upon which dispensary service should be better understood by the community and better serve the community."

How well are here set forth the almost universal needs of these very important (at least potentially important) medical institutions!

A special study of Cleveland's need for convalescent service, and its facilities for meeting that need, brought forth the following significant conclusions: "Visits to two hundred patients discharged from the wards of Cleveland hospitals showed 87.5 per cent in home environment unfavorable for convalescence. In two-thirds of these homes, conditions were remediable if adequate and adaptable social service could be supplied. This service is almost entirely lacking at present. In one-third, conditions were not remediable, and care in a convalescent home was needed. With present resources it is impossible to meet this need. The hospital faces a choice of evils, it must either retain the patient, using a bed needed for a case of acute illness, or return the patient to a home unfitted to complete the cure."

Lack of facilities for the care of the chronically ill has at least two serious results. One is the use of costly hospital facilities for their care, thus diminishing the facilities available for the acutely ill. The other is the lack of adequate care for large numbers of chronic patients who must be cared for outside of medical institutions.

Perhaps the greatest value existing in this noteworthy study of a city's institutional medical equipment lies in the fact that it is constructive. True, there were found many defects of organization and method. But the Survey is not content with bringing these to light, it gives the major part of its attention to the presentation of policies and plans by which these institutions may with greater efficiency serve their community. Because the conditions found could in many instances be found in any sizeable city, and because the plans for bettering these conditions are mainly universally applicable, this study is an extremely valuable and timely contribution to our literature on medical institutions in relation to community need.

*This is the second group of reviews of the different sections of the Cleveland Hospital and Health Survey, which are appearing in THE MODERN HOSPITAL. The first group, published in the April issue, were reviews of the Nursing Section, the Child Health Section, and the Tuberculosis Section.

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CLEVELAND'S PUBLIC AND PRIVATE HEALTH AGENCIES

By OTTO R. EICHEL, M.D., Albany, N. Y.

The Report on the Survey of Public Health Services and Private Health Agencies of Cleveland, is Part II of the Hospital and Health Survey recently conducted by a group of public health experts at the request of the Cleveland Hospital Council.

The report of the general survey includes eleven parts. Section 2, with which this review deals, is Part II, and is in turn presented in four parts.

Part I, the introduction, outlines Cleveland's Municipal Government, giving also a brief statement of the history, evolution, and present functions of the Welfare Federation, of which the Hospital Council is a member. One statement of special interest explains that, "roughly speaking, about twice as much money is raised for the services included under health preservation to be spent by private agencies annually in Cleveland as is appropriated by the civil government for this group of functions"; this necessitates the raising of two health budgets from the same group of people, one voluntary self-taxation, and the other compulsory taxation. It indicates, however, the public spirited qualities of Cleveland's citizens.

Part II gives an exhaustive review of the city's public health service, describing the division of health, which is part of the Department of Welfare. One by one the functions and accomplishments of the division's various bureaus are described; these are the bureaus of communicable disease, district physicians, sanitation, food and dairy inspection, milk control, and vital statistics. The new activities proposed for the division are institutional inspection, industrial hygiene, medical examination for city employees, public health education, and the control of drug addicts. The section concludes with a description of Cleveland's health centers and the coroner's service.

It is apparent that many of the weak features in Cleveland's health administration might be prevented if the health commissioner were a full time official with a compensation sufficient to enable him to devote all his time to the study, developing, and perfecting of his department. Proper educational public health publicity would undoubtedly aid in correcting this situation, but it appears that the position of research and publicity director has never been filled.

The indifference to conformance with Civil Service requirements in the matter of appointments, indicates a failure to recognize a necessary standard of competence and efficiency in filling positions. In addition, no physical examinations are given applicants, and no efficiency rating to employees. All of these circumstances naturally reflect throughout the service, in its administration and general morale.

An inadequate budget for this division may also be one of the reasons for some of its lack of efficiency, forty-seven cents per capita having been appropriated for 1920, in comparison with Detroit's 71.4 cents per capita.

Indiscriminate districting of the city by the various branches of the division must also contribute to the inefficiency of the city's health activities. The prevalence of smallpox, which is so extensive that practically all the time of the communicable disease bureau has been devoted to its control, appears to be due to the existence of large unvaccinated groups of people in various areas, and recently more particularly to the influx of Southern negroes. Just why these unvaccinated areas exist is not explained, but their existence is probably the result of the deficiencies in health administration already referred to.

The bureau of sanitation, for several years without a director, is conducted by a sanitary squad of police, without the necessary training to intelligently administer their work. Privy vaults, prohibited in most cities of the size of Cleveland, are not only permitted, but are often found in shocking condition.

Inadequate control of milk supplies through lack of city ordinances appears to be evident.

Cleveland has an extensive "patent medicine problem." The city is to be congratulated upon the important activities being undertaken to remedy this evil, although no notable reform has yet been accomplished.

Vital statistics, so absolutely basic in public health work, are "non-existent" in the city of Cleveland, according to Dr. Dublin. A glance at the budget shows an appropriation for 1920 of $7,029 for salaries for such a bureau, but no results of any value are obtained for this expenditure. No monthly records of births, deaths, or cases of communicable disease are available. The recommendations on vital statistics incorporated in the report would do much, if adopted, to increase the efficiency of the city's public health activities; these recommendations constitute a sound manual for the work of registration.

Part III deals with the private health agencies of the city, for which is expended, it will be remembered, twice the amount of money appropriated by the municipality for the protection of the health of its citizens. These include the Anti-Tuberculosis League, the Visiting Nurse Association, the Day Nursery, the Free Kindergarten Association, the Hospital Council, the Society for the Blind and a Program for the Prevention of Blindness, the Associated Charities, the Association for the Crippled and Disabled, and a program for the care of cripples, ending with the description of the proposed agencies and programs for the prevention and relief of heart disease, and prevention and cure of cancer.

The constructive and preventive value of these agencies appears to be due fundamentally to their affiliation with the Welfare Federation, preventing unnecessary duplication of effort and affording an opportunity for each organization to concentrate all its efforts on the phase of health work for which it was established.

The efforts of the Cleveland Society for the Blind in promoting model legislation for sight saving are particularly commendable. Although it is evident that much attention is being given to the cure of cripples, there appears to be lack of centralized effort in carrying out the various programs.

In Part IV, the report closes with the summary of recommendations of the Survey. These rightfully call for full time heads of divisions and bureaus, the development of an educational publicity bureau, the districting of the city according to the census tracts or sanitary areas, and a more intensive administration of both the public health services and the private health agencies.

THE CLEVELAND HOSPITAL AND HEALTH SURVEY—VENEREAL DISEASES

By JOHN H. STOKES, M.D., Mayo Clinic, Rochester, Minn.

It is estimated that approximately from 8,000 to 10,000 patients are annually treated for venereal disease in Cleveland, and that at least 30,000 of the population have the disease. This would seem to be a very conservative estimate. During the last six months of 1919, 1,654 cases of syphilis and gonorrhea were reported, which forms a rather small proportion of the estimated number observed.

Attention is directed in this report to a defect in diagnostic service which is all too common in municipal serologic laboratories, in that the temporary services of a

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college student on a part time basis are all that is available for the performance of the Wassermann test. The available hospital facilities are, as in other cities, totally inadequate. Seventy-five beds for syphilis and fifty for gonorrhea at the City Hospital, with the addition of a negligible number at the Lakeside Hospital, constitute the entire provision. It is practically impossible for a venereally infected person, willing and able to pay, to be admitted to any other hospital in Cleveland for gonorrhea or syphilis in the communicable stages.

One notes among the recommendations a suggestion that physicians prepare their offices and dispensaries to give medical prophylaxis for venereal disease, and to maintain contact with exposed persons thus treated. The establishment of a diagnostic center at the so-called Government Clinic is urged. It is suggested that this center receive all types of patients but that it refer to private physicans all applicants that can pay; and that it serve as a center to which physicians may send their patients for diagnostic assistance. This is an important step in the direction of public health centers for the advisory control of diseases requiring special equipment and expert service for their management. The work of the syphilological clinic at Lakeside Hospital and that of the venereal clinic at Mount Sinai Hospital is commended. The management of gonorrhea at several of the dispensaries is severely criticized on the ground of lack of privacy, follow-up, and education of the patient. The estimate of 150 beds as necessary to make the service of the municipal hospital effective seems conservative for so large a city.

The organization of a venereal disease bureau in the municipal division of health is recommended, thus extending to the municipality a plan of organization now in force in the separate states. To this bureau are assigned the organization, supervision and stimulation of treatment facilities, follow-up, and public education. It is advised that the chief of this bureau be a full time officer, not permitted to do clinical work, a recommendation which seems to us open to criticism on the ground that active contact with the medical problems of syphilis and gonorrhea gives to an administrative officer the necessary touch of practicality which is essential to the best cooperation and the highest scientific work. Such contact with clinical matters, however, should not imply swamping the official with routine treatment duty.

In the section on follow-up we note samples of the so-called "simple request cards" for follow-up, whose peremptory, mandatory tone is anything but an inspiration to cooperation. Too many social workers, in this field especially, evidence a disposition to regard follow-up as necessitated by the inherent delinquency of the patient, rather than by the actual demands of treatment. It is precisely this mandatory tone which gives to public dealings with the patient their distinctively disagreeable flavor.

In the section on law enforcement a very wise comment is passed upon the value of separating the problems of detection, diagnosis, and treatment of venereal disease, from the detection, diagnosis, and treatment of delinquency. Recent writers on police problems have emphasized the weakening of the effectiveness of the police by the distribution of their energies over fields which should be under other jurisdiction. While Cleveland is in general well equipped with laws and administrative machinery for the management of delinquency, it is recommended that much of the routine inspection of hotels, dance halls, and so forth, be conducted by a special women's bureau in the police department. It is further urged that the proper time for protective and probation work in the municipal courts is after the arrest, but before the trial or conviction of the offending girl. The establishment of a women's court and a finger print system of identification of all convicted sex delinquents is urged, the latter item to cost $2,500. The suggestion that any intelligent policeman can be taught to operate it, seems to need elaboration.

With reference to vice conditions, Cleveland has no red light district or public houses of prostitution. Little soliciting was being done on the streets, and the dance halls were not apparently being used for this purpose. The situation of many of the hotels, however, was inexcusably bad. Chauffeurs and taxicab stands are active parties to prostitution. The "Golden Rule" in the Cleveland Police Department is blamed for much of the laxity, and the attention of the city departments is invited to the new state law which eliminates fines for prostitution and provides for long sentences. The section on sex education contains no particularly new material.

SHORT TALKS ON PERSONAL AND COMMUNITY HEALTH

By Louis Lehrfeld, M.D. Agent for the Prevention of Disease, Department of Public Health, Philadelphia.[1]

The talks included in this volume are designed primarily for use in schools and for the social worker. They cover a wide scope of public health work and are written in simple language. The discussion of each subject is short and free from technical terms, yet the points essential for proper consideration of its relation to health are well covered. A particularly good instance of this is in the concise but convincing reasons given under the heading "Why You Should Not Spit."

The first section of the book is devoted to preventable diseases and how to avoid them. The author makes no pretense of offering new facts or ideas for one who is familiar with health activities, but he has given us a book that will be a valuable help in teaching school children, foreign workers in industrial centers, and other groups, how to promote health in their community, as well as giving instruction relative to their personal health and habits.

SOCIAL SERVICE NECESSARY

"It is timely to say that not a year passes without the readmission of patients who have been unable to maintain their readjustment to life outside. It is of the essence of what is commonly called "insanity"—an ugly word, of which we of Butler Hospital fight shy—that it connotes that degree of mental impairment which so involves the intellectual and emotional reactions of the sick individual that his language or conduct is inadequate to or inconsistent with his previous standard, insomuch that customary social contacts and *sustained self-adjustment* to his surroundings become difficult or impossible. It comes about, in the case of a fairly large number of our readmissions, that the patient has broken down under stress in the home environment, perhaps owing to the type of occupation taken up, or on account of failure to heed signals to 'stop, look and listen,' the importance of which had been pointed out to him at the hospital as a warning before his discharge. The fact is, at all events, that resistance often breaks down earlier by reason of causes that would seem avoidable under a proper system of after-care such as a trained social worker might furnish under the aegis of the hospital.—*1920 Superintendent's Report, Butler Hospital, Providence, R. I.*

1. F. A. Davis Company, Philadelphia, Pa., Publishers.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to Their Medical, Surgical and Nursing Services

Vol. XVI — *June 1921* — No. 6

ST. PAUL'S HOSPITAL, MANILA

By YORK and SAWYER, Architects, New York, and S. S. GOLDWATER, M.D., Consultant, New York

ABOUT two years ago the writers were authorized by His Grace, the Most Reverend M. J. O'Doherty, Archbishop of Manila, to prepare a set of plans for St. Paul's Hospital. The opportunity to plan a first class hospital for a tropical climate was an unusually attractive one, but the task presented difficulties, owing to the fact that Manila was *terra incognita* to us. It would have been impossible to proceed surefootedly or satisfactorily, if Dr. F. W. Dudley, chief surgeon of the hospital, had not generously come forward with a wealth of information and advice based upon intimate knowledge of conditions in Manila, as well as upon the thoughtful and intelligent consideration of the special requirements of St. Paul's Hospital, in relation to the Sisters, the patients, and the public. We are most grateful to Dr. Dudley for the service that he rendered not only to us, but to the hospital. Through Dr. Dudley we learned many things that it was necessary to know about climatic conditions, the special needs and requirements of the Sisters, local nursing organizations and methods, structural needs, classification of patients, local labor conditions, labor output and probable labor cost, native materials available for building, etc. Indeed, Dr. Dudley was able to place in our hands a complete working program, which Archbishop O'Doherty approved.

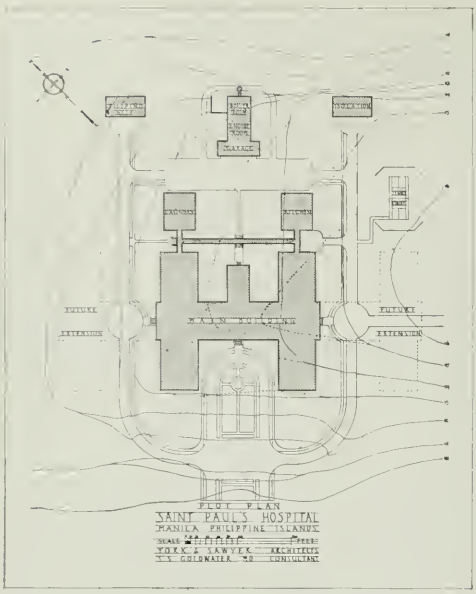
A view of St. Paul's Hospital, Manila, as one approaches from the front

The buildings are about 1,200 feet off the road north of Manila, on the city line, at the crest of a natural watershed and, happily, the site is large enough to permit locating the group of buildings as seemed best in consideration of orientation requirements and topographic conditions.

The buildings face southwest, and are approached by a main drive and a service drive. The main drive is planned with incoming and outgoing traffic separated by an ample parking of green, and lined on either side with native mango trees. At its intersection with the lesser drives, leading to the sides of the group, an open space has been provided for waiting motors. The service road leads to the service court at the rear of the group, and has contact with the kitchen, laundry, garage, power plant, and the main building.

The architectural treatment of the group is the result of a study of local and climatic conditions, plan and interior requirements, rather than an academic architectural project. It is, therefore, simple in detail, logical in fenestration, and pleasantly restful in mass, with cool arched loggias, broad masonry surfaces, tile roofs, and low outlying service buildings. It should perhaps be classed as Spanish Mission, which seems a fortunate coincidence when we consider the architectural traditions of the islands.

The plans show a main building which affords accommodations for 180 patients, a superintendent, thirty-eight nurses, twenty-six Sisters, two interns, and four male employees. A majority of the domestic staff will be housed in a separate



Plot plan of St. Paul's Hospital

building or buildings, of simple native construction. Future extensions to the right and left of the main building will eventually double the capacity of the hospital. Connected with the main building are the laundry and kitchen buildings, each of one story. A centrally located chapel is combined with the main structure. The boiler room, engine room, and garage are combined in a single structure slightly in the rear of and midway between the laundry and kitchen. Financial considerations were chiefly responsible for the temporary omission of an out-patient department.

The character of the soil precluded all excavation for basement or cellar; this brought forward the rather difficult problem of handling all of the domestic traffic on the first floor level. In order to avoid the carriage of food and other supplies through the central corridor, an open, covered corridor was introduced in such wise that supplies may be carried from either the kitchen or laundry to either wing of the main building, without entering the main or central corridor.

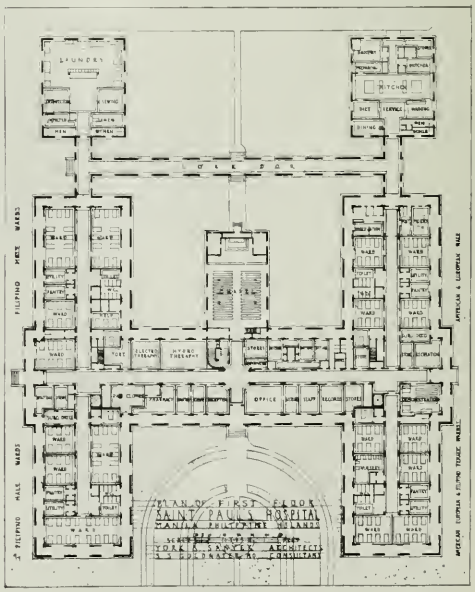
The ward program called for the separation of Filipino patients from Americans and Europeans. On the first floor the entire wing to the left of the main entrance is assigned to Filipino patients; the wing to the right accommodates Filipino and American female patients, and American and European males.

The largest wards contain sixteen beds; a majority of the wards are smaller, the six-bed ward predominating.

The largest ward unit (and by "unit" we mean a group of wards with a single set of service rooms) contains forty-one beds. The service rooms of this group consist of a nurses' station (in the expanded corridor), pantry, utility room, baths, water-closets and surgical dressing room. The nurses' station, pantry, and utility room are located centrally.

The plan, which shows a considerable number of inside beds, not immediately adjoining windows, is one that would not be suitable for a hospital located in other than a tropical climate; but the mean temperature at Manila is about 90 degrees F. and the hospital is practically a fresh-air hospital, with its doors and windows wide open all year. Under such conditions of ventilation, beds may without impropriety be placed in an inside position. In our own country it is customary to seek the sun; in the tropics conditions are reversed, and the sun is deliberately excluded from hospital wards as much as possible. It will be seen that a loggia surrounds the entire hospital, thus throwing all of the wards and private rooms into the shade.

Atmospheric conditions in the tropics demand an unusual ceiling height. Dr. Dudley proposed sixteen feet as a minimum, but expressed a strong preference for twenty feet. The partitions between wards and corridors, at the suggestion of

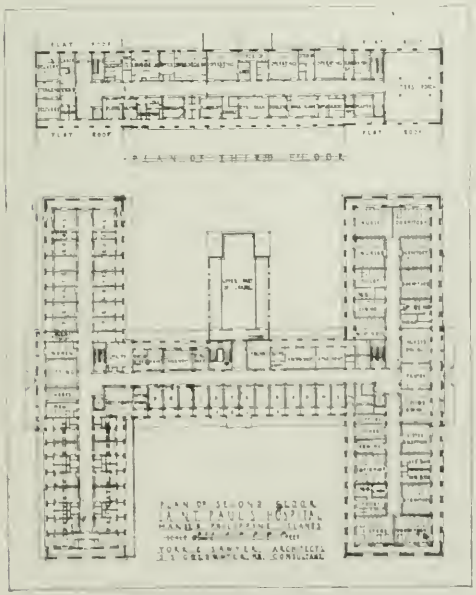


Plan of the first floor, St. Paul's Hospital

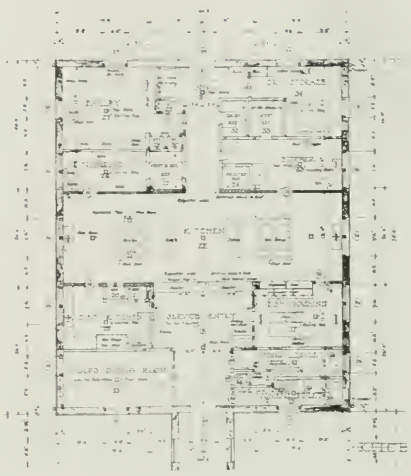
Dr. W. E. Woodbury, who is familiar with the Philippine climate, have been kept clear of the floor, so as to afford a constant circulation of air at the floor level as well as above—a method of construction that would not appeal to building committees in the United States.

The principal entrance to the main building leads directly to a reception room, a business office, and to the chapel. To the left of the main entrance are waiting and examining rooms, pharmacy, the departments of hydrotherapy, thermotherapy, and electrotherapy, and a number of storerooms. To the right, on one side of the corridor, are bedrooms, sitting rooms, and bath for the interns, all connected by a private interior corridor; on the opposite side of the main corridor are the office of the Sister Superior, an office for the staff, and a clinical record room. At the two extremities of the main corridor are two additional entrances, the one at the left affording immediate access to an elevator, serving the private patients on the second floor, the one on the right to the nurses' demonstration room, the nurses' reception room, and a private stairway by which the nurses' and Sisters' quarters are approached.

The kitchen building includes a receiving room, storage space for perishable and non-perishable foods, bakery, main kitchen, diet kitchen, preparation room, scullery, and a dining room for the Filipino help. A one-story covered corridor, open at the sides, connects the kitchen with the main



Plan of the second and third floors, St. Paul's Hospital

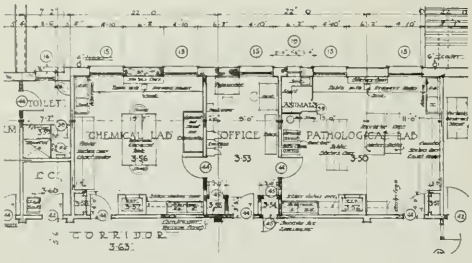


The kitchen and accessory rooms at St. Paul's Hospital

building. Symmetrically opposite the kitchen is the laundry building, in which have been placed, in addition to the laundry proper, a disinfecting plant, a sewing room, linen room, and lockers and toilets for men and women help.

The private rooms, thirty-nine in number, are on the second floor. There are obvious advantages in gathering the private patients on a single floor. A large centrally located utility room, and a fairly spacious diet kitchen serve this entire group. A small number of rooms have private baths and toilets; these rooms have been placed at the extreme ends of the corridor, farthest from the common utility or sink room. Every private room has its loggia. The chart room for the private patients is in close proximity to the elevator and stairway, by which visitors gain access to the second floor, and is at the junction point of the main and side corridors. Adjoining the chart room is a visitors' and convalescents' sitting room. It is expected that some of the private patients will be maternity cases; a crèche has therefore been provided, with washroom and incubator room adjoining.

In the right wing of the second floor are the quarters of the Sisters and nurses. The use of dormitories is prescribed by local custom. It is expected that eventually the Sisters and nurses will occupy a separate building, and the quarters now temporarily assigned to them will then be converted into semi-private wards for American and European patients. Separate dining rooms for Sisters and nurses occupy a central location between the sleeping quarters of these two groups. Between the two dining rooms is a pantry, and



The chemical and pathological laboratories at St. Paul's Hospital

directly opposite, a service elevator. It was at the express request of the Sisters that these dining rooms were placed on the second floor, in the privacy of the Sisters' section, rather than in a more public location on the first floor, adjoining the kitchen. There are separate reception rooms, sewing rooms, and locker rooms for Sisters and nurses.

On the third floor are the general operating rooms, three in number, special operating rooms for head work and plaster work, surgical supply and workrooms, and anesthesia, scrub-up, dressing and instrument rooms. A small consulting room has been placed near the entrance to the operating room. The laboratory suite includes an office and file room, a chemical laboratory, and a pathological laboratory, the whole representing a carefully thought out arrangement suitable for the average 200-bed hospital (teaching hospitals would doubtless require more extensive laboratories). In the x-ray department there are separate rooms for radiography and fluoroscopy, an office, a loading and developing room, dressing rooms, waiting room, and a room for plate storage. For the use of the maternity department there is an isolated suite, including labor and delivery rooms, sterilizing room, scrub-up room, toilet room, locker room, and supply closet.

At the east end of this floor, space has been given over to the Sisters as an outdoor porch. Roofed over and screened in, it will provide shelter from the elements, and will afford ample opportunity for exercise or rest in a quiet, retired place, removed from the public and the general hospital activities.

The roofs of the four two-story wings have been planned with tile surfaces and attachments for awnings, and will provide ample airing spaces for convalescing patients, and give, in front, an excellent view of the city of Manila and the harbor, and in the rear a view overlooking the San Juan River and the rolling, wooded country to the northeast.

The cubical contents of the main building are approximately 2,200,000 feet; the kitchen and laundry combined represent about 335,000 cubic feet. The unusually large cubical contents, compared to the number of beds, may be ascribed to high ceilings (eighteen feet), wide corridors (eleven feet), the spacious chapel, and the fact that the main building is surrounded by loggias.

The hospital is of fireproof construction, except that doors, windows, stairways, and posts will be of wood. For the floors and roof, reinforced concrete beams with concrete slabs have been used. The specifications call for gravel for all concrete. There is to be a continuous foundation wall of reinforced concrete to resist earthquake. The first floor, which is from six inches to three feet above the surface of the ground, is waterproofed with oil. Operating rooms, surgical dressing rooms, and baths are of tile. Terrazzo will be used for the entrance hall, and colored cement for the halls, rooms, and wards.

COMMITTEE TO CHOOSE HOSPITAL SITES ANNOUNCED

A committee of physicians who are to select the sites for the rehabilitation hospitals, for veterans of the World War, which were provided for by recent legislation, has been announced. The members are, Drs. Pearce Bailey, N. Y., Frank Billings, Chicago, Chancellor W. G. Bowman, and Dr. William C. White, Pittsburgh, chairman. The hospitals are to be constructed by the government and operated under the Bureau of War Risk Insurance. More than two hundred applications have been received for the location of the hospitals in various parts of the country. On March 30, and 31, the committee heard representatives from many parts of the country who wished to offer locations for the hospital. Dr. White announces that the committee will consider only government-owned sites or sites which the communities will donate to the government.

The committee will not only choose the location of the hospital, but will decide on the type of buildings to be erected. Twelve million five hundred thousand dollars will be expended for the hospitals. The committee is now conferring in Washington with heads of departments, including the War Risk Bureau, United States Public Health Service, and the Treasury Department.

The committee is occupying quarters of the War Risk Insurance Building and is making a statistical study of the hospital facilities of the various parts of the country with a view to relieving the pressure in the places where the hospitals are overcrowded. All hospitals which are being used for ex-service men are charted and classified. The committee is making recommendations on the enlargement of certain government hospitals.

HOPE TO OPEN SPEEDWAY HOSPITAL THIS SUMMER

New obstacles which have arisen will make it impossible to open the Speedway Army Hospital, Chicago, which has been referred to for some time as nearing completion, until August. A sewage system must be installed, electric current provided, a substantial roof put on the main building, and the hospital turned over to the United States Public Service before it will be ready for occupancy.

METHODS OF OBTAINING MORE NECROPSIES

By CYRUS C. STURGIS, M.D., Resident Physician, the Peter Bent Brigham Hospital, Boston, Mass.

The problem of obtaining more necropsies is one which affects the family of the patient, the progress of the sciences, and society at large. In this article, however, the author does not attempt to discuss the value of necropsies in relation to the advance of the sciences or the good of society as a whole, or to dwell on indirect methods of obtaining more necropsies, such as the education of the public, but to record the methods which have been used, and which have proved successful at the Peter Bent Brigham Hospital. The degree of the success attained is vividly shown by the chart accompanying the article. It is interesting to note that the number seems to be in direct proportion to the energy expended.

ABOUT one year ago it was noticed that the number of patients from the medical service of this hospital, upon whom a necropsy was performed, was becoming progressively less. Though our record has always been fairly good, it was decided that an attempt should be made to improve it, and the few simple measures which were introduced proved to be so successful that it was thought worth while to record them for the benefit of others who were anxious to make a similar attempt in this direction. If there is a sincere interest in the matter on the part of the medical and administrative staffs, and if they are willing to devote a reasonable amount of time and thought to the subject, it is not difficult to obtain permission for a post-mortem examination in 40-45 per cent of the deaths in a hospital. To accomplish an autopsy percentage higher than this one means a somewhat more elaborate effort; though in general the actual number of autopsies seems to be directly proportional to the amount of energy devoted in securing them.

It is not the purpose of this article to discuss the broader aspects of the value of necropsies as related to the advance of medical sciences and society at large, or to dwell on the more indirect methods, such as the education of the public in the value of necropsies, but briefly to record the methods which have been of service to us, and to note the reasons that have been given for refusal of autopsy.

It is a rule in the medical service of this hospital that the senior house officer request permission for a necropsy on each patient dying on his ward. This applies to all patients, whether on the public or private ward, with one exception, and that is when the death may be of a medico-legal nature. In that event the facts are submitted to the medical examiner for a decision, and we are not permitted to ask for an autopsy. The house officer knows that the responsibility of routine requests for necropsies rests entirely with him, and he is instructed to interview the next of kin immediately. The physician in charge of the ward is the logical individual at this hospital to make such a request, inasmuch as he has more intimate contact with the relatives of the patients than other members of the staff. He knows the nearest relative, from whom by law he must obtain permission, and is in constant touch with conditions, so that, immediately following death, the matter can be discussed; or in case the members of the family are not at the hospital, steps can be taken to locate them. As we have found requests by telephone to be very unsatisfactory, we insist that the responsible relative be seen in person, though this may necessitate the house officer making a trip to the residence of the family. In a few instances permission has been obtained by long distance telephone or telegraph, but this was done when it was the only possibility left.

Attitude of Senior House Officer

The senior house officer is instructed to place the matter before the responsible member of the family in a firm, straightforward, but kindly manner, and not in any way to resort to underhanded methods. He explains in simple language just what a necropsy is, and emphasizes that it does not in any way mutilate the body, and it is not apparent at burial that the body has been examined. The house officer should have the attitude that he is not asking permission merely as an accommodation to him, but that the hospital considers postmortem examinations a duty to the members of the family, society at large, and the medical profession. It is explained that the necropsy is done to determine the exact cause of death, and though the diagnosis may be obvious from a clinical standpoint, we are never positive of the exact condition unless the organs are examined in the gross and by the microscope. Furthermore, incidental pathological conditions, such as tumors, healed tuberculosis, syphilis, etc., may be found which would be important for the members of the family to know. In some in-

stances it is well to know if some undiscovered complication has existed which prevented an expected result from some efficient drug, as, for instance, digitalis. The argument that autopsies are of great value to medical science, and hence indirectly to society at large may be used, but in our experience it has not had much weight, except with the more intellectual classes. If it is suspected that the patient has died of some obscure infectious disease, as epidemic encephalitis, it is easy for the relatives to understand that it is necessary from a public health standpoint to establish the correct diagnosis. The relatives are told that the information gained from the autopsy is at their disposal, and arrangements are made at the time to transmit this information to them either by letter or personal interview. The house officer is told that in many instances autopsies are first refused, but this should in no way deter him from presenting further arguments, as frequently a little more persistance enables him to obtain consent. If after a thorough trial, however, he feels that consent cannot be obtained, he is instructed to call the resident physician, who in turn may ask any of the attending staff to assist.

It is our endeavor to obtain a complete autopsy in each instance, and we regard a partial examination as a poor substitute, but if we realize that this is impossible, we attempt, as the last resort and as a compromise measure, to secure an autopsy limited to the region of chief interest. In a few cases we have succeeded in this when met with a flat refusal of a complete examination.

In order to determine the exact percentage of autopsies obtained from month to month, and that the senior house officer may be properly credited for his energy in obtaining permission for necropsies, a careful permanent record is kept of each death by the resident physician, wherein the following facts are tabulated: name of the patient, sex, ward, date, whether or not permission was obtained, and if autopsy was refused, the reason for refusal. A record of this nature, open to inspection by those in the hospital, is an incentive to the house officer to do efficient work to keep his percentage up to the standard, and also in a period of a few years a number of interesting facts concerning reasons for refusal, the percentage of autopsies on public and private ward cases, the number of medico-legal cases, the importance of religious objection, etc., etc., will be accumulated, which will be of considerable value. At the end of the house officer's senior service his autopsy percentage for the entire period is determined, and recorded where it may be compared with the records of former and subsequent house officers. The individual records of the house officers of the medical service of this hospital since the institution of this custom are as follows:

Initials of house officer	Duration of senior service	Individual autopsy record Per cent	Total percentage for the period
L. D.	March 15, 1920, to	69.9	
C. N.	June 15, 1920.	62.5	66.6
D. W.	June 15, 1920, to	66.6	
R. M.	October 15, 1920.	66.6	66.6
E. G.	October 15, 1920, to	67.8	
S. F.	February 15, 1921.	69.2	68.7

The accompanying chart indicates the method of recording graphically the autopsy percentage each month, and serves as a valuable indicator of the success of the house officers in obtaining necropsies. The attempt to obtain more necropsies began March 15, 1920, and as shown on the chart the results were striking and immediate.

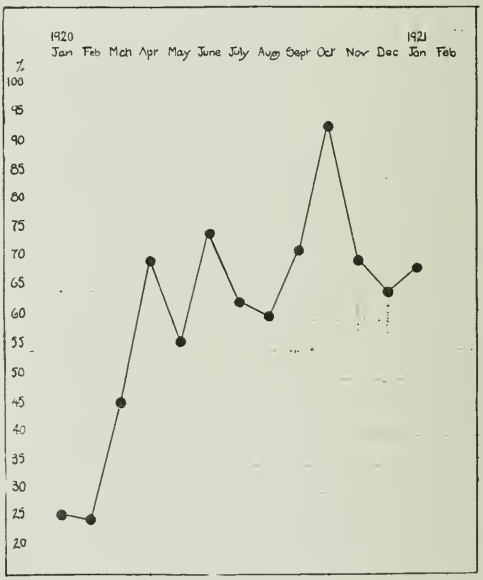


Chart illustrating the percentage of necropsies obtained per month. March 15, we began our efforts to obtain more autopsies. The percentage on the chart for the months of January and February, 1920, do not indicate accurately the usual percentage on the medical service, as for those two months the figures had fallen very low. The autopsy records of previous years are as follows: 1916, 44.4 per cent; 1917, 56.4 per cent; 1918, 37.6 per cent; 1919, 36.8 per cent.

Every endeavor is made to stimulate the medical house officer in charge of the ward to his best efforts, and we insist that he thoroughly acquaint himself with our methods, so that on entering his senior service he will be properly equipped to carry on the work. The resident physician discusses with him the arguments used and the

methods of presenting the request to the relatives. Likewise he is instructed that it is essential to secure the signature of the nearest relative, and he is warned that the one granting consent must understand what is being signed. He is urged to read articles dealing with the values of necropsies to stimulate his enthusiasm,[1,2,3,4] and during his junior house officer service, is trained by being present when his senior seeks permission for autopsies.

A study of the reasons for refusal of autopsy over a period of a year, reveals that by far the largest number were refused for "sentimental reasons." There is of course no argument that one can advance to meet this; all that can be done in an endeavor to overcome this objection is to point out the logical reasons for doing autopsies. One may call attention to the fact that there should be no more sentiment concerning a necropsy than there is about embalming, or as far as that is concerned, cremating or burying a body. It is rather surprising to note that in a number of instances when a physician, trained nurse, or a minister was a member of a family, autopsy has been refused on these grounds. It is somewhat difficult to explain why these three groups, from whom one expects cooperation, should react in such a manner. Perhaps this has been merely a coincidence, as the number of cases where this relationship existed has been rather small, but it will be interesting to note its influence in future records.

The next most common reason given for refusal of autopsy is the statement that it is against the Jewish religion, and in our experience it has been exceedingly difficult to obtain autopsies from Hebrews. As nearly as one can ascertain, the statement that an autopsy is against their religion is not essentially true, though opinions seem to differ on this matter. We have been able to obtain a few autopsies on Jewish patients, and the fact that in one of the largest Hebrew hospitals in this country the autopsy record reached 50 per cent for a time, indicates that autopsies on Hebrews are obtainable, and one should not hesitate in attempting to secure them.

In a few instances autopsies have been lost through the influence of the undertaker, and it is important for the hospital to secure his cooperation, and not incur his enmity, for in many families, particularly among the poorer classes, council is frequently sought from the undertaker as to the advisability of an autopsy. The least a hospital can do, as far as undertakers are concerned, is to see that vessels are tied properly, so embalming may be done without difficulty, and that the body is made ready for delivery as promptly as possible. It is our custom to ask the relatives, at the time permission for the autopsy is secured, when they wish the body delivered, and if this is determined, to specify the exact time on the permission blank. In case the time of delivery has not been determined, the relatives are asked to have the undertaker telephone the hospital before calling, and in this way avoid delay.

There are many other points to be learned by experience which will assist in placing the matter before the relatives in the most satisfactory manner, but after all the most essential requirement is a real desire for necropsies on the part of physicians, and a willingness on their part to devote a reasonable amount of time to interviewing friends and relatives. It is amazing to note the low ratio of autopsies to the total number of deaths in most hospitals in this country, yet every physician realizes their importance to the advancement of medicine, and their value in raising the standard of medical practice. There are only a few hospitals with an autopsy percentage over 50 per cent, and recently in an editorial in the *Journal of the American Medical Association*, there appears a statement that the Chicago Academy of Medicine found that the autopsy percentages in the hospitals of that city varied anywhere from 48 per cent to none at all in nine institutions. There is no real reason why such a condition should exist if there is a genuine desire on the part of the staff of any hospital to correct it. Postmortem examinations may be obtained on 30-50 per cent of all deaths with no other measure than the mere asking for them. The aim should not be, however, at such a low percentage but a routine autopsy on each death should be the mark, and that this is not altogether an impossibility is evidenced by the fact that at the Mayo Clinic in 1915, autopsies were performed on 95 per cent of all deaths. It is impossible to tell but that the most obvious and ordinary clinical diagnosis may be the most interesting and instructive necropsy, and if necropsies are limited to only the apparently interesting cases much of importance will be missed. The entire matter of necropsies is of such fundamental importance to the medical profession that it warrants the serious consideration and closest cooperation of the entire staff of the hospital, both professional and administrative. Under such conditions the solution of the problem would present no great difficulties.

1. Burrows, Montrose B.: Why Should Autopsies Be Held? The Argument To Be Used With Relatives and Friends, Interstate M. J., 25:760, (Oct.) 1918.
2. Castleinw, Rush E.: The Superintendent's Responsibility for Obtaining Post Mortems, THE MODERN HOSPITAL, 13:182 (Sept.) 1919.
3. Wilson, Louis B.: The Necropsy as a Public Service, J. A. M. A., 50:1784 (June 7) 1913. Also in Collected Papers of the Mayo Clinic, Philadelphia and London, W. B. Saunders Company, 1916, VII, 937.
4. Winternitz, Milton C.: Necropsies—Their Method of Obtaining and Protection of the Hospital, THE MODERN HOSPITAL, 8:36 (Jan.) 1917.
5. Necropsies and Medical Progress, editorial, J. A. M. A., 76:526 (Feb. 19) 1921.

THE NURSES' HOME AT HACKLEY HOSPITAL, MUSKEGON, MICH.

By GRACE D. McELDERRY, R.N., Superintendent of Hackley Hospital, Muskegon, Mich.

DURING the summer of 1917, the trustees of Hackley Hospital decided to erect a nurses' home that would provide for fifty student nurses and eight officers. Building material had already made considerable advance in cost but in the light of the great increase since 1917, the decision to build then has proven its wisdom.

The new home was erected on the spacious grounds consisting of four large city blocks, surrounding the hospital building, which is centrally located.

The architecture of the home conforms in a general way to that of the hospital building. It is built of red brick with Bedford stone trimming,

A front view of the Hackley Home for Nurses.

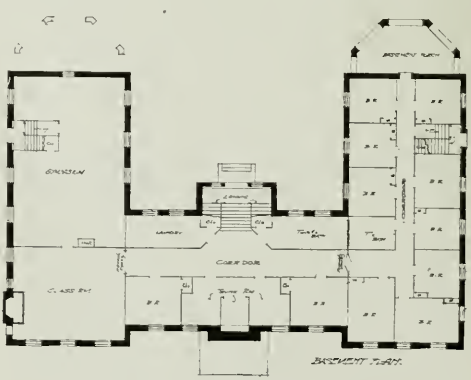
and is of practically fireproof construction. The floors and stairways are reinforced concrete poured on metal forms. In all the rooms of the building the floors are white oak laid on the concrete, while the stairs and corridors are covered with composition corkstone, the base and cove black and the middle portion tan. This makes a very attractive flooring.

The building has a 120-foot frontage and is seventy-two feet deep, with an open court in the rear formed by extensions of thirty-six foot wings. Opening off the wings at the rear of the building on both floors are large porches, screened in summer and enclosed with glass in winter. These four porches provide two sleeping porches and two living porches, one of each kind for the supervisors, and for the student nurses.

The front entrance of the home is colonial in design, two large columns support a small balcony opening off the second floor. On entering the door, there are four steps leading up to an octagonal lobby. Directly in front, the broad stairway leading to the second floor and the landing half way up the stairs, with attractively curtained windows, give a very pleasing impression of the home as one enters. From each side of the lobby eight-foot corridors lead to the wings of the building. To the right as you enter the lobby is a small, cozily furnished living room for the matron, or the house mother, as we prefer to think of her, with her bedroom adjoining. In this wing on the first floor are also to be found rooms for six supervisors, and a suite of rooms for the principal of the training school. These rooms are well furnished, comfortable, and homelike.

On the left of the lobby are large reception and living rooms. The reception room first entered has brown mahogany chairs and davenport, with cane backs and blue velour cushions. The rugs of both rooms are alike, and are soft shades of blue, French gray, and rose, intermingled in a beautiful Japanese design. From the reception room double French doors open into the living room so that the two rooms may be used as one. The furniture of the living room is also brown mahogany but there is also an over-stuffed tapestry couch with two large chairs to match. At the far end of the room a large fireplace adds to the general impression of homelike comfort and beauty. A beautiful baby grand piano, the gift of the staff physicians and the board of trustees, provides much real enjoyment for the nurses. A victrola also adds pleasure to their hours off duty.

At the end of the corridor near the living room



Basement floor plan of the Hackley Home for Nurses.

is a small kitchenette containing an electric range, sink, cupboard and refrigerator, and next to it is a small dining room.

The main dining room for the nurses is in the hospital building so the little kitchenette and dining room are merely for Sunday morning breakfasts for the nurses off duty, and for convenience in serving refreshments when guests are entertained. On this floor are also located a large linen closet and a maids' closet.

Each floor of the home has two large bath and toilet rooms containing two tubs, two toilets, eight lavatories, and one dental lavatory. This arrangement simplifies the plumbing, as the bath rooms on the second floor are over those on the first floor and in the basement. Each floor also has a drinking fountain in the corridor near the stairway.

The second floor contains a sewing room at the head of the stairway over the entry; the other rooms are all single and double rooms for the nurses, except the night nurses' dormitory which is at the end of one wing and opens out onto the sleeping porch. This arrangement provides a quiet, airy, well ventilated sleeping room for the night nurses.

In each room are two lights, one by the dresser, the other over the study table. Each room contains a closet of the wardrobe type with hangers for garments, and a shelf above for hats.

There are three stairways, the main stairway in the lobby and one in each wing. The basement, which is only underground two feet, contains accommodations for the maids in one wing, which is separated from the rest of the basement by French doors. It contains single and double rooms, a living room, and a large toilet room. These rooms in the basement are as light as the rooms on the first or second floor.

A large trunk room, and a laundry containing three stationary tubs and an electric iron, have been included for the nurses.

The living room has this attractive fireplace, with comfortable chairs before it.

The reception room is connected with the living room by double French doors, the furniture and upholstery in the two rooms harmonize artistically.

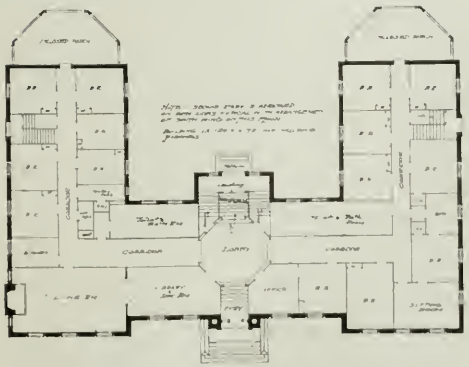
A well lighted class room, thirty by twenty-four feet, has been carefully planned and equipped with everything necessary for thorough instruction, as well as blackboards, cupboards, and drawers for articles used in demonstration.

Perhaps the room which gives most pleasure to the nurses is a large gymnasium, thirty by forty-five feet. A finished floor is laid in this room so that dances may be held here.

In the planning of the whole building the comfort of the nurses was the first consideration. Every care has been exercised to make it homelike and to provide it with equipment that will attract the nurses and keep them satisfied in their home life.

The grounds around the home provide ample space for croquet and tennis courts.

The new home is lighted and heated from the hospital plant, the steam being sent across in an underground conduit.



First floor plan, typical of second story arrangement, Hackley Home for Nurses.

ORGANIZING A MODERN HOSPITAL LABORATORY

By O. J. WALKER, M.D., Director of the Laboratories of the Youngstown Hospital, Youngstown, Ohio

ONLY recently has the laboratory been recognized as an important and indispensable department of an efficient hospital organization. The laboratory of even our larger urban hospitals (the university teaching hospitals are excepted throughout this discussion) of not so many years ago, very frequently consisted of some dark cubby-hole in the attic or basement, where urines were examined for albumen and sugar, and perhaps an occasional blood count was performed. The work was usually delegated to an intern or some young physician just starting in active practice, and in consequence, laboratory methods were usually a secondary consideration.

"Only within the last decade have hospital authorities and the medical profession awakened to the wonderful possibilities of a fully equipped and properly functioning hospital laboratory. Former complicated and tedious procedures have been simplified and shortened; . . . while our knowledge of the significance and clinical application of bacteriology, serology, chemistry, hematology, and metabolism in disease, has been enormously broadened and enlightened. . . . Even the laity have awakened to the fact that the intelligent diagnosis and treatment of disease is no longer dependent solely upon analysis and deductions from objective and subjective signs, but is becoming an exact science."

Only within the last decade have hospital authorities and the medical profession awakened to the wonderful possibilities of a fully equipped and properly functioning hospital laboratory. Former complicated and tedious procedures have been simplified and shortened; newer, more delicate scientific apparatus has been devised; while our knowledge of the significance and clinical application of bacteriology, serology, chemistry, hematology and metabolism in disease, has been enormously broadened and enlightened. The researches of Folin, Henderson, Flexner, VanSlyke, the Benedicts, and a host of others will be recorded as epoch making in the history of the hospital laboratory. The campaign of publicity and education, instituted recently by the American College of Surgeons, has been no small factor in stimulating interest in the clinical laboratory. The late war, with its intense postgraduate training of thousands of physicians, bringing them in contact with large hospital organizations where every kind of laboratory facility was available to assist them in diagnosis and treatment, has done much to create a demand for better laboratories in our civilian hospitals. Even the laity have awakened to the fact that the intelligent diagnosis and treatment of disease is no longer dependent solely upon analysis, and deductions from objective and subjective signs, however valuable they may be, but is more and more becoming an exact science.

In order to meet such demands, hospitals, large and small, have developed the so-called "clinical laboratory." Groups of physicians not having hospital affiliations have founded their own laboratories, or have patronized the "commercial" laboratory. Some hospitals have expanded their laboratory facilities to accommodate all the medical profession in the community who desire to use them. Truly, ways and means of satisfying the demands for clinical laboratory services have been numerous, and variable is the attendant success achieved. However, it is not within the scope of this paper to discuss this phase of the subject.

Hospital Laboratory Activities

What constitutes an efficient hospital laboratory organization? Fundamentally, such a laboratory forms a unit in an institution whose only reasonable justification for existence is the service that it renders to the sick and suffering of the community. Therefore, the laboratory can qualify as an effectual department in the institution of which it forms a part, only as it succeeds in rendering a full measure of the particular kind of service which is demanded of it by the hospital and the community.

What, then, are the services which a hospital can require of its laboratory? Only as we have these definitely in mind can we intelligently direct the activities of the laboratory. Primarily, a clinical laboratory should provide all those scientific laboratory procedures of proven worth, for the assistance of the physician in the diagnosis, prognosis, and the treatment of the disease. Secondarily, the laboratory activities should include the public health work of the hospital, the instruction of the nurses, technicians, interns, and the physicians of the community, in the laboratory methods and their clinical significance; and lastly, every laboratory should lend its facilities to the solution of some of the manifold problems which daily confront the medical man in his fight with disease.

The laboratory procedures which are of valuable assistance in the diagnosis, prognosis, and treatment of disease are many, and every year their number increases. The development along this line has been no less phenomenal during the past few years. Methods that were not known half a decade ago, or at the most were only mentioned to the medical student of five years past, are daily routine in the modern laboratory. These tests include the sciences of pathology, bacteriology, serology, immunology, hematology, chemistry, and metabolism.

Value of Postmortems Recognized

The value of postmortem examinations has long been recognized for the light it throws on disease phenomena, and for its check upon diagnosis. The average hospital too often slights this important field. *As the percentage of autopsies in an institution rises the percentage of undiagnosed death falls, and the quality of the service rendered by the medical staff improves.* The corollary of this statement is that as the percentage of postmortems in an institution increases the mortality in that institution decreases.

A gross and microscopic description, together with a pathological diagnosis by a competent pathologist, of all surgical tissues, is routine in all hospitals which deserve the name. Not only is this a very essential part of the record of an operation, of value to the hospital from a medicolegal standpoint, but it is of infinite value to the surgeon in determining the correctness of his diagnosis and operative procedure, in the intelligent postoperative treatment of the case, and in the critical study and compilation of statistics of similar cases.

Although the examination of frozen sections of fresh tissues at the time of operation has a limited field of usefulness, yet the value of this procedure in avoiding unnecessary, radical, mutilating operations in nonmalignant cases is unquestioned, and the method deserves more universal application than it at present enjoys.

That the laity are awake to the importance of necropsies and routine surgical tissue examination is becoming more and more apparent from the frequent requests for private autopsies, and reports on tissues removed at operation.

The examination of tissues, fluids, and secretions, normal and pathological, for disease organism, has an importance which is so universally recognized as to need mentioning here only for the sake of completeness. Yet it is surprising in view of the statement just made how little utilized are the available methods for the specific diagnosis and intelligent combating of infectious diseases. Aside from throat swabs in diphtheria and smears in gonorrhea and tuberculosis, the several score of other equally valuable procedures are only occasionally called for in the average hospital. Blood culture in diseases in which a bacteriemia is usually associated, pneumococcus typing in pneumonia, examination of the cerebrospinal fluid in acute forms of meningitis, dark field examination of venereal sores, examination of throats, urine, and feces for "carriers," are only a few of the many procedures that should be performed daily in any fair sized institution for the care of the sick.

With the advent of serological methods the diagnosis and treatment of syphilis has undergone a change, so that today no one attempts to deal with this disease without the Wassermann test. Tuberculosis, gonorrhea, pneumonia, dysentery, typhoid, and many other conditions are manifest in a more or less specific way by one form or another of serologic test which is simple of performance in a well equipped laboratory. Immunologic procedures are so closely associated with bacteriology and serology that the laboratory has seemed the natural medium for their development and performance. So the preparation of autogenous vaccines, diagnosis and treatment of protein sensitization in hay fever, asthma, and allied conditions, administration of anti-sera and prophylactic vaccines are a part of the function of every well equipped laboratory.

The examination of blood by physical as well as chemical, bacteriological, and serological methods has become a science in itself. Such is the recognized importance of blood examinations that the so-called "complete blood" (including the examination of the red and white cells, a determination of the relative percentage of the various kinds of leukocytes, and the determination of the hemoglobin percentage) has become a routine procedure in many hospitals. Surely the diagnosis of most operative cases is incomplete without a leukocyte count, and the differential percentage, together with a coagulation time of the blood. The determination of the coagulation time of the blood has become a routine with most conscientious nose and throat men. Compatibility tests between donor and recipient are an essential preliminary to blood transfusion and skin grafting. Thus we might continue naming several score of blood tests that have a recognized utility.

Era of Expansion of Chemical Knowledge

At the present time we are in the midst of a great era of expansion of chemical knowledge as applied to medicine. It can only be likened to the previously occurring rapid development of bacteriology, when its possibilities became clearly recognized. The contributions in protein chem-

istry and the newer knowledge attained in metabolism and functional pathology emphasize the truth of this assertion. Chemical methods of investigation, formerly too complicated and time consuming for practical application have been simplified and shortened without sacrificing accuracy, until we have many new and valuable tests suited to clinical application. Newly introduced biochemical methods are becoming ever increasingly such direct aids to clinical diagnosis and treatment, that of the total clinical laboratory examinations a large percentage are already chemical. The newer methods for the quantitative determination of various constituents of the blood, urine, and other fluids may be here mentioned as an example. Nephritis, diabetes, and acidosis are only a few of the many conditions that require examination by chemical methods as a most important part of their rational management.

The determination of the basal metabolic rate, or the basal heat production of the body, has only recently been simplified so as to come within the realm of the clinical laboratory. For several years this procedure has been of recognized value in the study of certain disturbances of the ductless glands and in blood dyscrasias. The addition of this procedure to the laboratory armamentarium opens up another interesting and promising field in the domain of clinical medicine.

What might be designated the "public health work" of the hospital is a very important activity of the hospital laboratory. The director of the laboratory might be termed the chief sanitary officer of the institution, for the questions naturally referred to him of this nature are those with which such an officer has to deal. Some of the duties for which the laboratory should be responsible in this respect are the regular examination of the milk and water supply of the hospital, a regular bacteriologic examination of the operating room technic, examination of the culinary department personnel for the presence of communicable disease, and the prophylactic vaccination of employees against infectious diseases to which they are constantly in danger of exposure. These are only a few of the many duties which fall to the laboratory department in this field.

Educational Activities

Every complete hospital organization has its nurses' training school, and the laboratory sciences are a part of every standard training school curriculum. It is only natural to turn to the laboratory personnel for instructors, and to the laboratory material for the practical demonstrations and practice in these studies. Hearty cooperation in this respect is a conscientious duty of the laboratory.

The laboratory must assume its share of the intern instruction. The average intern, bent on a purely surgical or clinical career, frequently finds that side of medicine so engrossing that he loses sight of the present and growing importance of laboratory procedures, particularly their significance and relation to history and physical findings. The laboratory must help the intern to see the importance of a well rounded medical education, and contribute its share in helping him to obtain it.

New Field for Non-Medical Technician

The remarkably rapid development of the clinical laboratory within the last few years, coupled with the lack of a sufficient number of medically trained men to do the work, has created a new field of endeavor for the non-medical technician. Under medical guidance, the services of non-medical technicians are quite satisfactory, dependent, however, upon their training and temperament. The army, during the late war, trained many technicians, and several undergraduate and postgraduate medical schools now offer courses of training to non-medical laboratory workers; but still the demand for reliable, thoroughly trained and competent technicians far exceeds the supply. Obviously, until conditions change, each laboratory should assume its share of the training of this highly technical branch of medical specialism. The very nature of the work is such that the training must always be one largely concerned with practice. Theoretical knowledge is essential and can be obtained through lectures or reading, but the technical skill required in the performance of most laboratory tests can only be acquired by repeating the technic many, many times. Where else, if not in the laboratory, can this practical training be obtained? Gradwohl's[1] recent suggestions for training schools for laboratory technicians, with a "laboratory examining board," before which all graduate technicians should qualify, are timely and well taken. Such training must, however, for the reasons stated, follow the plan of schools of technology, of giving students an opportunity to obtain the desired mechanical skill by actual work in the "shops" that are doing daily practical work.

It was remarked previously in this paper that a large percentage of the total tests now performed daily in any well organized laboratory were not taught, or at best only casually mentioned, in the medical curriculum of half a decade

1. J. A. M. A., Jan. 8, 1921, p. 127.

past. New methods and broader application of laboratory examinations in diagnosis, prognosis, and treatment of disease are being constantly developed in all branches of the laboratory sciences. The practitioner can scarcely be censured for not being able to keep up with the race. The scope of medical science is becoming so broad that no one can hope to adequately and efficiently cover the whole field. The laboratory must therefore point the way to the clinical application and the correlation of these newer methods with symptoms and physical findings in disease.

Original Research

Research in the average hospital laboratory outside of the university circles is handicapped for want of funds. Of clinical material there is usually an abundance, but unless some member of the laboratory staff can be assigned time for uninterrupted experimentation and meditation over his problem, original research is a slow and very discouraging proposition. However, analysis of accumulated data on series of cases observed in a routine way, or trying out new methods to determine their value, can be constantly carried on as a part of the laboratory work.

The position of the laboratory with respect to other departments of the hospital is one entirely too reciprocal to bear isolation or an independent sphere of activity. The closest cooperation with every department, nursing, clerical, culinary, housekeeping, engineering, and purchasing, is essential to the highest type of service.

Laboratory Equipment

The physical equipment and personnel of the hospital laboratory of the present day is largely dependent on the progressiveness of the institution, and the professional demands of the medical staff.

The foundations on which the physical equipment of a complete laboratory must be built are fundamentally those necessary in laboratories of chemistry, bacteriology, pathology, serology, and hematology. Glassware, apparatus, and reagents in sufficient quantities are necessary to uninterrupted and efficient work. As accessories to these departments, necropsy room, museum, library, office, examining room, animal quarters, metabolism ward, preparation room, and stock room are necessary. All the departments, with the exception of the metabolism unit and necropsy room, under stress of dire necessity, can be alloted to different parts of one or two large rooms. Ideally, all of these departments are placed in separate adjoining rooms. There are numerous reasons why the highest degree of efficiency can only be attained in this way. In planning any laboratory, plant systemization, so as to conserve the time and energies of the workers, is an important detail. Duplication of apparatus is economical when it saves steps for the worker. When possible, the supplies and reagents for any given test or set of tests should be so placed that one can have everything for that test within hand's reach. Stock reagents and chemicals should be kept constantly on the shelves, so that no tests need be held up for want of these supplies.

Provision for a working library, even if necessarily very restricted in size, should be made in any complete laboratory development. The laboratory field of knowledge is developing with such giant strides that it is necessary to keep constantly in touch with numerous scientific journals if one's institution is to keep up with the times.

Very few hospital libraries are in any way adequate to the calls made upon them by the laboratory. The reason often given in explanation of such a deficit in ready-to-hand knowledge is that such books are too expensive to acquire. As a matter of fact, a small outlay yearly, judiciously invested by a competent authority, suffices to obtain a very useful working set of journals and text books which, if properly preserved and supplemented every year, will in a surprisingly short time develop into a most valuable reference library.

Metabolism studies are assuming more and more importance in the proper scientific study of disease. As a matter of common experience, it is very difficult to properly carry out metabolic studies in the midst of an active medical ward. Segregation of patients undergoing studies, as well as their complete control, is essential for the proper conduct of such work. Specially trained nurses or technicians are also essential to the best results. For most requirements, two small rooms for male and female patients, with a conveniently situated diet kitchen, are adequate. The location of this unit should, if possible, be directly adjacent to the chemical laboratory.

Importance of Proper Reports

Reports are not an unimportant phase of a laboratory organization. The character and promptness with which reports are sent out from the laboratory is frequently one of the chief points upon which the efficiency of the laboratory is judged. Uniform report forms are indispensable. Reports should preferably be typewritten or at least legibly written in ink. They should be numbered serially and be made out in duplicate, one copy going to the patient's record, and the other being filed away in the laboratory as part of the permanent laboratory records. These latter should be indexed as to patients' names, doctors,

diseases, and tissues. It is surprising how often one refers to his report files as an aid to the physician or for statistical data.

The laboratory personnel may be divided into professional, technical, clerical, and unskilled labor. The numerical size of such a personnel will vary with the size of the hospital. In the large, well equipped and financially assured hospital, it may be a director, with medical or at least non-medical technical assistants, in each of the departments of chemistry, pathology, bacteriology, serology, and metabolism, and with adequate technical and non-skilled labor in each, together with sufficient clerical help to prepare reports, file and index records, and otherwise care for the office duties; or perhaps in the small, financially struggling institutions it may be a single full time medical man with one or more technicians. *Not a few small hospitals are attempting to get along with a non-medical technician, often inadequately trained, in charge of their laboratory; but lacking the guiding influence of a properly trained medical man with special laboratory training, this plan, is, if anything, worse than no laboratory at all.* It results in a lot of poor, inaccurate examinations which in the end only tend to discredit laboratory work, and obstruct the deserved progress of this most useful department of the hospital.

The Laboratory Director

The director of the hospital laboratory, if he is to make his department measure up to its fullest efficiency, must, in addition to being a medical man, be an administrator, critic, and teacher. The laboratory chief is usually chosen because he is preeminently a pathologist, bacteriologist, serologist, or chemist, and as a result his particular specialty is often the one most emphasized in his organization, and a lop-sided laboratory is the result. The ideal head of a laboratory is well grounded in all the laboratory sciences as they are related to medicine, so that he views them all with an impartial eye and endeavors to correlate each and every one with clinical medicine. He is a specialist whom the clinician calls in consultation in cases where laboratory help is needed. He is a voracious reader, covering the extensive literature pertaining to his specialty. He views all new laboratory procedures with a critical eye, separating the chaff from the grain, and incorporating that which is good in the laboratory armamentarium. He has imagination to visualize and devise new methods, and attack original problems as they arise. He is a teacher, instructing those under him and those about him in laboratory technic, the significance of results, and their interpretation in the light of clinical findings.

The laboratory is drawing to it some of the best minds in medicine today, but if they are to remain in the work the remuneration for this special kind of service should be at least equal to that of other special branches of medicine. The present scarcity of medically trained laboratory men is in no small measure due to the starvation salaries paid for this highly specialized type of service, which, with the special training required and services rendered, ought to pay as well as the practice of the average high class practitioner.

When communities, hospitals, and the medical profession as a whole fully realize the necessity for a laboratory service such as is set forth in this article, we will see such an advance in the practice of medicine and in the care of the sick as will tend largely to reduce the number of chronically ill.

HOTEL RESERVATIONS AT WEST BADEN SHOULD BE MADE EARLY

The American Hospital Association is looking forward to an especially pleasant conference this year, in the matter of living conditions, as it is quite probable that all the members will be housed in one hotel, and that they will have the hotel practically to themselves. The West Baden Springs Hotel has assured accommodations for members and delegates to practically the full extent of its capacity, the contract providing that a minimum of seven hundred attending the conference will be housed there, and the full capacity of the hotel being open to advance reservations by the members. Guests of the hotel cannot be refused, however, if they make advance application for unreserved space in excess of the seven hundred rooms. Therefore, you should make sure of your reservation by writing for it immediately.

All the rooms are large so that more than one person can comfortably occupy a room, in this way taking advantage of the reduction in rate. The rates of the West Baden Springs Hotel, the headquarters of the convention, are as follows:

AMERICAN PLAN—PER DAY

Without Bath	Single	Double
Rooms Facing Atrium, Hot and Cold Water Only	$ 7.00	$13.00
Rooms Facing Atrium, Toilet, Hot and Cold Water	8.00	15.00
Outside Rooms, Toilet, Hot and Cold Water	9.00	17.00
Outside Rooms, Toilet, Hot and Cold Water, Specially Appointed	9.50	18.00
With Bath		
Rooms Facing Atrium	9.00	17.00
Outside Rooms	9.50	18.00
Outside Rooms, Specially Appointed	10.50	20.00
Tower De Luxe Rooms, en Suite	11.00	per person

PUBLIC HEALTH SERVICE WANTS INFORMATION ON X-RAY FACILITIES

The x-ray section of the office of the Surgeon General of the U. S. Public Health Service recently sent out a questionnaire asking for information concerning the x-ray facilities available at the various hospitals and other institutions, where persons coming under the care of this Bureau, are at present, or might be in the future hospitalized. The questionnaire covered such points as: the electrical conditions, type of current, number of volts, phase, etc.; equipment, make and size of machine, if the institution owned one; type of disease for the study of which the equipment is adapted; the floor space of the department, and any other pertinent information.

WASHING THE HOSPITAL'S FLAT WORK*

By WALTER TRIMBLE, Chicago, Ill.

PRIMARILY, a hospital's flat work is washed to put it into a sanitary condition, but the aesthetic sense demands more than mere sanitation. The goods could be completely sterilized and still present a soiled appearance because of grayness or yellowness, and thus offend the eye, and even the sense of smell. The mass of the people, however, knowing little of sanitation, and caring less, put the aesthetic side first, demanding snow-white linen, with little thought of lurking microbes.

Hence, as the hospital is a public institution, it must meet the public demand for snow-white linen, and in meeting this demand it is put to more than a little trouble and expense. If nothing but the removal of the loose dirt and the complete sterilization of the fabrics were required, the laundry's task would be very simple. All that would have to be done would be to give the articles a ten-minute lukewarm bath of washing soda and water, a twenty-minute cold rinse, at about 180° F., and a five-minute cold rinse. This would answer the purpose, because the first bath would remove all albuminous substances, the second would kill the germs, and the third would cool off the goods so the pieces could be handled.

SECTION OF WASHROOM.

This view shows one side of the washroom of the laundry of the Dix Hill State Hospital, at Raleigh, N. C. At the left are two sterilizing washers and an extractor, and at the rear is a high-pressure sterilizer, which is a machine for washing contagiously infected goods.

But our aesthetic senses demand more than this—a great deal more. And therein rest the difficulties of the washing process, not only with flat work, but with all other white goods. Most of the hospital's washables are white goods, and these not only must be clean from a bacteriological standpoint, but they also must present a snow-white appearance to the eye, and this whiteness must be attained with a minimum amount of damage to the fabrics.

To make discolored goods white is a very simple matter, but to make the fabrics white without doing damage to the fiber is by no means easy. It is a comparatively simple matter to avoid mechanical damage to the fabrics in the washing process, but skill and care must be exercised in order to avoid chemical damage to the fibers of which the fabrics are made.

In addition to whiteness, it is necessary to have softness; that is, the articles which come in contact with the skin must not be harsh and rasping, and, as one patient expressed it, "feel as though they had been starched with whitewash." This condition is brought about by the use of hard water, which causes a calcium or magnesium compound, called lime soap, or soap curd, to be deposited on the fabrics.

First Washroom Requisite

Every hospital wants, or should want, soft, snow-white sheets, bedspreads, towels, pillow-slips, napery, and so forth, all of which in the laundry are referred to as flat work. The first requisite for producing soft, snow-white work is what in the laundry industry is known as "zero" water, which means water of no hardness.

It does not matter how fine the washroom equipment may be, nor how excellent the soap, washing soda, and so forth, you supply to the washroom, its operatives will be seriously handicapped if they must use hard water, even if it only contains four or five grains of hardness to the gallon.

I may here add parenthetically that each one and three-tenths grains of hardness causes a loss of one pound of soap for each thousand gallons of water used in the suds baths—a loss which soon will pay for a water softener in most cases.

If hard water is used in the washing process, either in the suds baths or rinses, or in both, the goods will be impregnated with what is known as "lime soap," which is a rancid, sticky substance, insoluble in water. When this is deposited in the white fabrics they take on a grayish, dingy cast, and in addition to this the pieces are harsh and

*This is the seventh of a series of articles appearing in THE MODERN HOSPITAL, on the hospital laundry.

gritty to the touch. Then, in a futile effort to get rid of the lime soap, the average washman will over-wash and over-bleach the goods, thus shortening the life of the very expensive fabrics. The lime soap may be removed by a hot acetic acid bath, but if the use of hard water is continued, this is no use, because the lime soap will be deposited again.

With abundant absolutely soft water at his command, such as may be had by the use of one of the zeolite systems, a washman may wash the goods snow-white with a negligible amount of shortening of the life of any piece. Note that I use the word "may," for I do not mean to assert that the average washman "will" do this, even with soft water at his command. The average washman is prone to over-wash and over-bleach, regardless of an abundant supply of soft water, and if he has a hard-water pipe into his washing machines, he will be almost certain to rinse with hard water, thereby destroying most of the benefits of soft water. But that is a topic which we will discuss later.

Washing Classifications

In the washroom of the hospital laundry the fabrics to be washed are divided into several classifications, and each class is washed by its own formula. In the average hospital, the flat work will constitute the largest volume of the goods to be washed. As a usual thing, the flat work which comes from the operating rooms and surgical wards is washed separately from the other flat work, because the pieces are stained with blood. This is not absolutely necessary, however, as no matter whether the articles are stained with blood or not, the same washing formula may cleanse all articles of like nature, and also sterilize all of them.

SECTION OF WASHROOM.

This view shows one side of the washroom of the laundry of the Dix Hill State Hospital, at Raleigh, N. C. There are in this section three all metal washers and two over-driven extractors. The washroom of this hospital's laundry has excellent light and is well ventilated, as one can see from the pictures.

VIEW OF DRYROOMS.

In the laundry of the Dix Hill State Hospital, at Raleigh, N. C., the large dryrooms adjoin each other. On the right is a conveyor dryroom, through which the pieces go automatically, after being hung on the endless chain. On the left is a plain dryroom, into which racks of goods are put. Both, of course, are steam heated.

One group of flat work will consist of sheets, pillowslips, and similar articles, and these may be washed in thirty minutes, or in forty minutes at most. The first bath must be a lukewarm water and soda breakdown, or rinse, to remove the albuminous matter, such as blood, perspiration, and so forth, together with any loose dirt which may be in the goods. This bath must not be hot, for heat will cook the albuminous matter, just as it will cook and make insoluble the white of an egg.

One experienced and capable manager of a hospital laundry uses tri-sodium phosphate in his breakdown for bloodstained goods, in preference to either soda-ash or neutral soda, claiming that the former rinses out more freely with cold water than either of the latter. Others do not agree with him, however, so this is a matter for each manager to determine for himself, as is the case in many other instances where "authorities differ."

Another thing on which authorities have agreed to disagree is as to the merits of what is called the "low-water" washing system. With the low-water system about three inches of water is used in the suds, and about six inches is used in the rinses. Here, again, the manager must fall back on his own judgment, but I will say that the low-water system, especially where soft water is available, offers many advantages.

Usually, the second bath for flat work is a hot suds, of about twenty minutes duration. Some, by means of a steam jet introduced into the washer, bring the temperature up to 212° F., but this is not the best practice, for boiling shortens the life of the fabrics, and if wooden washing

SECTION OF IRONING ROOM.

This view shows a section of the ironing room of the laundry of the Dix Hill State Hospital, at Raleigh, N. C. The front part is devoted to the ironing of apparel, and the rear is devoted to the ironing of flat work. This is a very large room, with good light and ventilation.

machines are used, the boiling water gradually "pulps" the wood and destroys it.

As has been shown in a previous article, a temperature of 175° to 180° F. is high enough to sterilize the goods, and as the lower temperatures answer just as well as the higher for cleansing purposes, it seems that the safe course should be taken.

This brings up the necessity of having a reliable thermometer attached to each washing machine. There should be a clock in plain view, for time is an element. The matters of temperature of the hot baths and the time it is maintained are of extreme importance in the hospital laundry, because on the "killing" temperature of the water and the length of the bath depends the safety of the people in the hospital, both patients and employees. Some rule-of-thumb washmen assume that just because steam is arising from it, the water has reached a destructive temperature, forgetting that on a cold day water at 115° F. will throw off a large volume of vapor.

Some subject this class of flat work to a second suds, others do not. With soft water, a second suds is not necessary in many cases, for the goods will not always be badly soiled. It is better to have to wash a few pieces a second time than to over-wash a whole load.

After the suds comes the rinsing, and here again comes up the question of high-water or low-water. Rinsing is very important, as one must get out all of the soap and soda, if a rancid odor and bad color are to be avoided. With soft water, two hot and one lukewarm low-water rinses, with, say, six inches of water in the cylinder, will do the work.

Every so often, if snow-whiteness is desired, a bleach bath must be introduced into the washing process. Some bleach the goods every time the material is washed, but this is a wasteful practice, for even the mildest bleach which is practical will shorten the life of the fabrics. If bleach is used, the bath should be followed by what is called a "sour," which is a bath of acid, to neutralize any bleach or alkali which may remain in the goods, and also to pave the way for the blueing bath. Some washmen bleach in the suds, but the best scientific authorities pronounce this an improper practice.

For the sour, some advocate oxalic acid, some advocate acetic acid, and some the middle course of a mixture of the two. Acetic acid will not injure the goods, and as it is volatile, it is the safest to use. Oxalic acid is not volatile, and if not entirely rinsed out it may concentrate in spots and eat holes in the goods. Its principal advantage rests in the fact that it removes iron stains. If it is used intelligently, and without guesswork, it will give no trouble; but a washman who does not guess at things is a rare bird.

Blueing, like charity, often covereth a multitude of sins, and thereby is a sin in itself. The prevailing tendency is to overdo the matter. The common practice is to put into the bath about six times as much blueing as is necessary, and then rinse a lot of it out—but not nearly as much as should be removed.

Other Flat Work

The hand towels belong in about the same category as the bed linen in the matter of washing, and do not need many baths. Bath towels should be sterilized well, but they do not need much washing. The bedspreads may be washed in the

LARGE HAND IRONING DEPARTMENT.

This is a good view of the large ironing department of the laundry of the Dix Hill State Hospital, at Raleigh, N. C. It contains sixteen ironing boards, which shows that a large volume of hand work is done. Like all other departments of the laundry, it has plenty of light and air.

same manner as the sheets, but some claim that they need more bleach and blueing, although no good reasons are given for the assertion.

The table linen, however, may need two or even three suds baths, and a mild bleach with javelle water at each washing, for it usually contains coffee stains and food discolorations which are very hard to remove. A very small amount of starch, applied in the last rinse, together with the blueing, is advisable, for it improves the appearance of the goods. In the case of napkins, merely a slight trace of starch should be used.

Do not make the mistake of trying to remove all difficult stains in the washing machine, for it is foolish to subject a whole load to drastic treatment in order to remove stains from a few pieces. After the articles are taken out, remove the stains separately, by the use of spotting reagents. This matter will be dealt with in a future article.

MODERN METHODS OF ANESTHESIA

In a paper read before the West Virginia Medical Association, at Clarksburg, May, 1919, Dr. L. D. Norris of Fairmont, expressed the opinion that more should be known by the medical profession concerning the new methods of anesthesia, in order to decide whether or not they are really better than the old. Dr. Norris laid down four rules for the administration of a general anesthetic, as follows: (1) the anesthetic should be suited to the patient and should be modified, or changed entirely, as indicated; (2) the introduction should be pleasant to the patient, with respiration, blood pressure, and color reflex continuing normal; (3) the maintenance of anesthesia should vary with the surgeon's needs, at the same time the patient's condition should be as nearly normal as possible; (4) the transition from the anesthetic stage should be as gradual and smooth as the induction, the patient emerging as from a quiet sleep, without pain or nausea. All of these things may be accomplished by modern methods, says Dr. Norris, which are not in common use by surgeons who use only one method for everything. Anesthesia is an important part of the practice of medicine, and one method should not be adopted, regardless of conditions.

Nitrous oxid oxygen is one of the newer forms of anesthetic which is constantly gaining advocates. From the point of use, straight ether is undoubtedly the leading anesthetic today. But there are certain physiological effects of ether which mar its usefulness, such as its persisting and nauseating odor, its long and unpleasant induction, its long and unpleasant elimination, its destructive action on the red blood cells, and its general toxic effect. It is often found that patients are dreading the anesthetic more than the operation, and this fear often produces the very shock that it is important to avoid.

From the viewpoint of results, the ideal method of anesthesia is without doubt the system of anoci-association as developed and used by Crile. Anociation may be defined as absence of harmful association or impulses, and is applicable to the entire care, treatment, and environment of the patient. With perfect local anesthesia a light anesthetic like nitrous oxid is all that is needed to bring about a satisfactory narcosis, so this agent has been selected as part of the anoci systems. Some surgeons are using the nitrous oxid-oxygen-ether sequence for general anesthesia, and omitting the local anesthetic, the results obtained are not quite as good as when the full anoci system is used, but there are several advantages of this method over open drop ether. This method takes first place as far as safety is concerned, especially if administered with oxygen. It cannot be administered by untrained people, as is the open drop ether method, or the fatalities would exceed those of any other anesthetic, but when it is given by one trained for the work, it comes nearer to fulfilling the four laws than any other method known today. With proper apparatus and a trained anesthetist, nitrous oxid and oxygen can be administered for long periods in major surgical operations. Cyanosis can at all times be avoided, the induction is pleasant, as the gas is odorless and tasteless, and a few inhalations produce unconsciousness, it is quickly eliminated, and produces very little nausea. Preliminary medication by morphine sulphate grain one-sixth and scopolomine grain one hundred and fiftieth from one-half to one hour before the operation, renders nitrous oxid anesthesia deeper and smoother, and ought always to be used in all prolonged administrations. Scopolomine has a special sedative effect on the higher cerebral centers. This particular medication is an important factor in this system whether nerve blocking is done or not, substituting atropine for scopolomine alters this factor. If this does not produce sufficient depth of anesthesia, ether should be added in small quantities, as an adjuvant to nitrous oxid. The anesthesia is quickly deepened to any desired degree in this manner. With the closed method of administering nitrous oxid, oxygen and ether, pneumonia is reduced more than fifty percent, post-operative nephritis becomes extremely rare, there is less likelihood of nausea, and nourishment may be given relatively early. In acute infections such as peritonitis, nitrous oxid has a special advantage, for it does not reduce the resistance by breaking down the phagocytes as is done by such lipoid solvents as ether.

In obstetric practice nitrous oxid is used with success. It is not suitable for very young children, or persons with a generally weakened musculature, or for the very old.

There are comparatively few contraindications to nitrous oxid and oxygen, and although Dr. Norris does not recommend any anesthetic agent or method as a routine, yet he believes from his own experience and that of others that this method has a wide range of usefulness.

PLANS DEPARTMENT OF PUBLIC WELFARE

Brigadier General Charles E. Sawyer, President Harding's personal physician, has presented to the Senate Committee on Education and Labor a plan for the creation of a new executive department of the government with a Cabinet officer at its head. The plan provides for an executive department to be called the Department of Public Welfare, with four main divisions, covering education, public health, social service, and veteran's service administration. All the existing agencies of the government dealing with health matters would be placed under this department in the Public Health Division, in charge of an assistant secretary. The arrangements are to coordinate research work, quarantine, sanitation, and hospitalization.

General Sawyer declared that there is no reason why the United States should not have the greatest public health service in the world since it has the surgeons, investigators, and laboratories to make this possible. He stated that there was no reason for having existing public health service under the Treasury Department.

COLOR IN THE MODERN HOSPITAL

By WILLIAM O. LUDLOW, of Ludlow and Peabody, Architects, New York City

GOD everywhere decorates His handiwork with color. As I look out over the fields, after a snowfall, I notice that Nature, even in this robe, her most colorless dress, still has brown leaves on the oaks, purple shadows spread on the snow, silver gray bark on the birches, green foliage on the conifers, bright red berries on the low shrubs, ultramarine mountains along the horizon, and a turquoise blue over our heads.

Man insensibly loves color, for it was doubtless spread for his enjoyment as well as for utility.

Now, whatever brings pleasure, brings not merely a passing sensation, but something that ministers to mental health and bodily well-being. Perhaps we have not appreciated this as we might, but have considered color merely as something to assist in the pleasurable sensation created by beauty.

Mental Reactions from Colors

Color produces distinct mental reactions, and we know, of course, that mental reactions are immediately reflected in bodily condition. These reactions are brought about partly by the association of ideas, for from time immemorial, different colors have been assigned significance. Black, for instance, is used quite generally in the civilized world to indicate sorrow; red means danger; purple is associated with royalty. Again, blue is associated with coldness or cheerlessness; we say a man has the "blues." Red is associated with heat and passion, we say a man sees "red"; and white connotes sterility and lack of virile quality, we say one is "white livered" or shows the "white feather." By association, therefore, color may produce subjective emotions.

Aside from this, the effect of color often produces real excitement or depression of the nervous system, purely as a physical reaction. One cannot sit in a bright red room for any length of time, with a feeling of comfort; we say the key is too high, which means that the nervous system is unduly stimulated. A blue room may be pleasant enough on a warm summer day, but the color is not stimulating, and its great absorption of light, and particularly of the yellow rays, makes it devoid of cheer. White, except in great monumental work, is to be avoided, for although it does not absorb the impinging light, it suggests sterility, coldness, and lacks all power to create pleasurable and helpful sensation. Green is a restful color and, when used in the lighter shades particularly, makes an agreeable surrounding.

The sunshine colors, gold, yellow, and buff, used on walls and ceilings in appropriate tones, bring to the inside of the house something of the joy of the sunshine, as we see it on fields and woods.

Color Applied to the Hospital

Let us consider now how these observations apply to the hospital. There is a general feeling of antipathy for the hospital, that should not and need not exist. True, it is a place of suffering, but its chief object is relief of suffering, and its more important function is convalescence.

Our feelings and sentiments of antipathy or attraction are largely influenced by the impression that the appearance of things makes on our minds, and the heretofore grim and institutional aspect of the hospital without, and its cheerless and barren appearance within, are partly responsible for the common dread of an institution whose very atmosphere should breathe a welcome.

But our thought has been so engaged in bringing about ideal negative conditions, no dirt, no noise, no odor, that we have often forgotten the positive conditions of environment that may be more effective in bringing back bodily health than what the nurse gives from the spoon. During the period of recovery, the mind of the one in the hospital bed is perhaps more than usually responsive to the aspect of his surroundings. The tired eye that forever roams over wall and ceiling until every crack is known by heart, craves something more positive than barren white walls; it wants objects of interest, such as pictures, stenciled patterns, hangings at the windows, and above all, the repose and warmth that only color can give.

White is negative; the convalescent needs the therapeutic reaction of the positive colors that Nature has spread so lavishly for her children. Her forest walls of white leaves! Her carpet of white grass! Her limitless ceiling of white! God forbid. Our eyes were made to find rest and contentment in soft greens, pale blues, an occasional touch of red, but above all, in the glorious golden yellow of the sunshine.

Warm Colors Best for Hospitals

White is the winter color, dazzling and brilliant, but is somehow reminiscent of winter's cold and cheerlessness. Let us, then, cover our hospital walls with color, selecting those that give

warmth and quiet, and that gentle stimulation that helps the patient along the road to recovery.

On the hypothesis that white may to advantage be replaced in many rooms in the hospital by warmer colors, let us particularize. Our first introduction to the hospital is usually through the main entrance lobby, which should be like the warm handclasp and friendly smile of the sort of new acquaintance that one likes to meet. How many hospitals that you know have this welcome, and how many greet you with walls as cheerless as a whited sepulcher, with "Institution" written all over them? It is just this lack of warmth, this "institutionalism," that keeps thousands of sick people in their inadequate homes, when they should have the care and treatment that only the hospital can give.

Lobby Should Have Welcoming Tone

In decorating the lobby, therefore, I would use the same kind of color schemes as express the welcome of the entrance to the hotel or club house, or even the private residence. Let the ordinary rules of good decoration govern, using sunlight tones if the lobby is not well lighted, and duller shades if there is plenty of real sunlight.

In a recent hospital we adopted a Pompeian scheme with its customary primary color tones of red, orange, and blue. It suited this particular lobby and its lighting admirably, and with the addition of appropriate hangings, makes the entering patient feel that perhaps the hospital is not such a bad place after all.

Adjacent to the lobby is usually the waiting room for visitors or prospective patients. I cannot see the reason for linoleum floor covering, sanitary baseboards, coved wall and ceiling angles, undecorated walls, and no window hangings, unfortunately so common in this room, which has its full share to contribute to the atmosphere of the building. A well chosen oriental rug, substantial wicker furniture, upholstered with quaint chintzes or cretonnes, with window hangings to match and walls painted to tone in, take away all "institutional feeling"; they are cheerful and give a real welcome.

Buff Has Essential Qualities

For the private rooms, wards, halls, and operating room, if I were told that I might choose just one color for all, I would select a light, warm gray tone, more commonly called buff, for this color has more of the essentials than any other. These essentials are, first, a proper conservation of the light in the room by reflection, for sunlight and electric light are both valuable. Second, the color must be one not too easily soiled; third, it must not produce eye strain; and fourth, but not least important, it must be agreeable and cheering to the patient. As I have pointed out previously, this quality is therapeutic to a degree not to be underestimated.

Now let us take this "buff" as a base color, and I will assume that my client has given me permission to vary it according to type of room and orientation; what will I do with it? In the wards or private rooms on the north, where the sun's rays seldom enter, I will mix a little yellow with it to simulate the sun's glow. In the east and west rooms, where the sun comes in for part of the day, I will leave it as it is. In the south rooms, where bright sunlight can be obtained most of the day, I will add just a little gray and a little green, making a cooler color than other rooms require. A French gray is very pleasant for private rooms with southern exposure, particularly if enlivened by window hangings, rugs, or furniture showing touches of pink.

Darker Rooms Have Yellower Shades

Hallways, which are apt to have less natural light than bedrooms, are best painted with sunlight color; this applies also to kitchens, laundries, and such rooms as do not get an abundant supply of sunlight. These might be painted like the north rooms.

The operating room, to my mind the most interesting room in the hospital, because of its highly technical requirements, should have most careful consideration given to its color scheme. The surgeon, when operating, must have a great abundance of light, yet without glare. White glazed tile and white walls, used so much formerly, have largely been replaced by color and texture with less glare. In one hospital a soft olive green wainscot five feet high was used, with light color on walls and ceilings. The green is most agreeable to the eyes of the surgeon as he bends over his work, but on raising his eyes, a visual shock is caused by the sudden transition from the absorptive green to the reflecting white. I know of nothing quite so satisfactory as a dull French gray tile for the wainscot, and a lighter gray for reflecting surfaces above. Thus no visual readjustment is necessary to the surgeon on lifting his head, and yet the light in the room is conserved by suitable reflection.

I do not want to close without a few words about furniture and stencils, and their decorative value as applied to hospitals and sanatoriums.

"How much does it cost?" is usually our first question whenever we are about to buy something. To "buy" what stencil decoration gives

is a good bargain, for there are not many things that give so much beauty, so much interest, so much cheer and indication of considerate thought at such little cost. Having no projections, moreover, it is not a "dust catcher." We all know that a stencil is merely holes cut in paper to form a pattern, and the stenciling is merely brushing paint repeatedly through these holes onto the wall or ceiling, so that the process is quick and inexpensive. A little hand touching in other colors is, however, advisable, to give a sparkle to the design.

The eye wearies with too much plain, unbroken surface, and by the eye we mean, of course, the mind, and that, in natural consequence, means the physical well-being. Then, after our walls and ceilings have been painted the proper tones, let us by all means comfort and entertain the convalescent mind by some fanciful leaf bands, punctuated perhaps by bright berries, or perhaps by suitable conventionalized birds, flowers, and, if it is where children will see it, we might use quaint animal forms, or the ever entertaining brownies. But always in rooms where one must look at it for long stretches of time, make the design one which will have distinctly imaginative qualities.

What of furniture—must we use only white enameled beds, bureaus, and tables? There is nothing quite like an iron bed frame for ease of cleaning and indestructibility, for wards and general use, therefore, it is advisable. I do not believe though that it must be white enamel. Iron beds painted with light blue, green, buff, and brown are common now; they are quite as serviceable as white, and much more grateful to the eyes of the patient. Private rooms should be furnished very similarly to home rooms with bed, bureau, table, chairs, etc., of oak, birch, or maple, or tastefully painted wood, avoiding, however, unnecessary mouldings and ledges. Dainty, washable hangings at the windows are almost indispensable in sick rooms, to give the homelike atmosphere.

I would make it plain, however, that I emphatically do not advocate equipping, furnishing, and decorating a hospital just like a home or hotel. My feeling is merely that in the past years we have overstressed the appearance of sterility, and neglected to give a reasonable emphasis to the therapeutic value of consoling and cheerful environment.

The therapeutic effect of a mind led away from its own ennui and burdens is often better than medicines, and a contented spirit is one of the steps on the road to health.

STORING FOODS IN THE HOSPITAL

By HERBERT O. COLLINS, M.D., Director of Hospitals for Fresno County, California

IN CONNECTION with the best means of storage, foods may be divided into three general classes: those which can be safely stored in an ordinary dry storeroom, those best kept in a root cellar, and those requiring cold storage or refrigeration.

The first class includes chiefly the cereals, flour and meals, dried fruits and ordinary canned vegetables and fruits, and canned meats and fish. There is some advantage in storing the canned goods mentioned in a special compartment of a root cellar, where there is no danger of freezing or overheating, and in which the temperature can be kept fairly uniform.

When kept in a storeroom, cereals will be best kept in bins, either made entirely of metal, or of wood, metal lined. This is important as providing protection from vermin and rodents, as well as for ordinary cleanliness. It seems unnecessary to say that cereals should never be kept in open barrels or open bins, exposed to dust. The same arrangement can be used for the preservation of dried fruits, providing they cannot be conveniently accommodated in the room of the storage cellar provided for canned goods. All such articles should be regularly and carefully inspected at frequent intervals, in order to be sure they are in good condition and are not deteriorating. If cereals are purchased in cartons they may be safely stored on shelving, but they are more expensive than when bought in bulk. If purchased in large quantities, however, they are not so easily inspected.

Tea and coffee should be stored in a dry place, in air-tight metal containers. Coffee should be freshly roasted, preferably by one skilled in the process, and should be ground daily as needed. Flour and meals can be kept in the sacks in which they are received, and stored on shelves in any dry place, or in barrels. They should be carefully protected from rats and mice.

Many vegetables, fruits, and roots may be successfully stored in a root cellar for many months. This is also a good place to keep canned fruits and vegetables, jellies, jams, marmalade, and preserves. If no such place has been provided in the

*This is the fourth of a series of articles appearing in The Modern Hospital on the hospital's food service.

original construction of the hospital, it is usually possible to find a portion of the basement which by some remodeling can be made into a practical root cellar at slight expense. If possible, a portion of the basement which can be shut off without interfering with the use of the rest of the floor should be selected for the purpose. It should be near enough to the basement entrance to make delivery of the foodstuff as easy as possible. It will need at least one window for ventilation, but should not be too light. All steam and hot water pipes, or other sources of heat, should be removed. If made of stone, concrete, or brick, the outside walls of the building, as well as the ceiling, will require some form of insulation. But a dirt floor, protected by slats, is the best floor which can be obtained, as a certain amount of moisture in the air is necessary. If there is a cement floor in this part of the basement it should be taken up and a well packed dirt floor substituted.

A cheap and convenient insulation can be provided by first nailing studding on the walls, and covering these on the inside with lath and plaster, leaving an air space between the plaster and the outside walls. The ceiling should be treated in the same way unless already plastered. If it is necessary to construct a new wall to shut off this portion of the basement, or to put in partition walls to divide the root cellar into compartments, such walls may be constructed by the use of studding, plastered on the inside, and covered on the basement side with a layer of sheathing, and one of tongue and grooved siding, with building paper between. Partition walls should be plastered on both sides. A more durable job will result if cement plaster is used rather than the ordinary lime plaster. The door should be wide enough to admit barrels and the ordinary trucks used about the hospital.

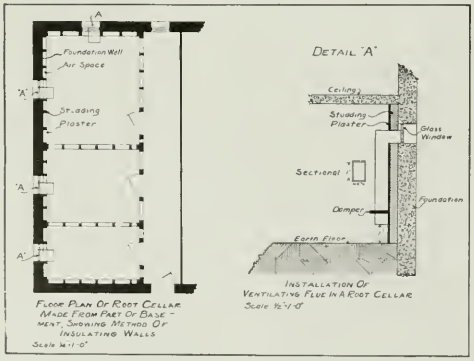


Fig. 1. Floor plan of a root cellar.

The windows of the root cellar should be darkened, either by boxing them over, or by painting them with a dark colored paint, removing one pane of glass for ventilation. Into this should be inserted the end of a ventilating flue about six or eight inches in diameter, leading down the wall to within a foot of the floor. This should contain a damper, and the end connected with the outside air should also be covered by a door which can be closed in the coldest weather. The ventilating flue can be made of wood, or an ordinary stove-pipe may be used for the purpose.

If it is planned to keep a variety of products in the root cellar, it will be found desirable to subdivide it into at least three compartments, each with its own independent ventilation, in order that the temperature and humidity of each room may be regulated as necessary, according to the needs of its contents. One such room would then be used for articles needing a comparatively low temperature with a high humidity, the second for those requiring a dryer air but which can stand a little higher temperature, while the third and probably the smallest of the three will be useful for the storage of canned goods, for which an even and cool temperature is desired, with less importance attached to the control of the humidity. The accompanying plan, Figure 1, illustrates a root cellar constructed in this way.

In such a cellar the temperature can be fairly well regulated by the intelligent use of the dampers in the ventilators. In the warmer months these should be opened in the evening in order to admit the cooler night air, and closed in the morning. The doors should be opened as seldom as possible.

Since a certain amount of cold storage can be carried out in the hospital, there are fundamental principles which need to be understood, even though food is stored there for only a short time. The relative humidity of the air is important, both in the root cellar and in the cold storage rooms, and will differ for various products, as will also the required temperature. When the humidity is too low there will be deterioration of the contents of the room due to increased loss of moisture by the products, resulting in shrinkage or wilting, while if it is too high, moisture will be deposited, making conditions favorable for growth of molds and bacteria. Too low a humidity may be remedied by setting tubs of water in the room, hanging wet cloths from the ceiling, or by allowing a jet of steam to escape into the room at intervals. Most of the common fruits and vegetables keep best in a cellar in which the relative humidity is rather high, with

a temperature just above the freezing point, although a few of them, especially onions, require a dryer atmosphere and a little higher temperature. The containers should be clean and strongly made. If articles are stored in sacks or crates they should be so stacked as to leave free circulation of air between them.

It is quite important that foods be in good condition when placed in storage, otherwise the result will be discouraging. Only the best qualities should be selected for the purpose. It is hardly possible to emphasize too strongly the importance of holding an even temperature in both the cold storage rooms and in the root cellar, as fluctuations of temperature shorten the life of both fruits and vegetables and injure their keeping qualities. The same effect will be the result in the case of meats, fish, and poultry.

Foods most suitable for preservation in cold storage are apples, butter, eggs, cheese, meats, poultry, fish, dried fruits, and syrups. Those more suitable for the root cellar are potatoes, sweet potatoes, onions, carrots, turnips, rutabagas, cabbage, canned goods, jellies, preserves, and marmalades.

Potatoes should be placed in the root cellar in the autumn, selecting for the purpose, sound, well matured potatoes, free from blemishes or bruises. Carrots, rutabagas, and turnips should be cared for in the same way, and may be placed in the same room. They should be handled carefully, as cuts in the skin or bruised spots will injure the keeping qualities. Fluctuations in the temperature of the cellar should be avoided as much as possible, and the room should be dark, to prevent sprouting, well ventilated, and protected from freezing. The best temperature is from 35 degrees Fahrenheit to 40 degrees Fahrenheit, with a humidity of from 80 to 85 per cent. They can be stored in burlap bags, ventilated barrels, boxes, crates, or bins. If placed in bins, the bins should be built of slats, and should not be more than five or six feet deep. Frequent inspection should be made to see that the stored articles are in good condition. With proper conditions they should keep well for at least six months. A shrinkage of from 6 to 8 per cent may be looked for.

Sweet potatoes are more difficult to keep than Irish potatoes, and require somewhat different handling. Special care is necessary in their selection, since they must be absolutely free from bruising or damage of any kind. They are best kept in a root cellar in which the humidity is never high enough to cause a deposit of moisture upon the product, or upon the walls of the room. For the first couple of weeks after they have been

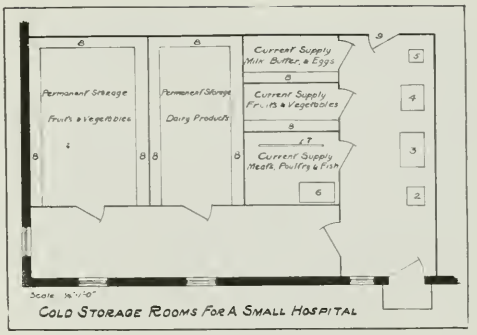


Fig. 2. Cold storage rooms for a small hospital.

1. Delivery door. 2. Scales. 3. Meat block. 4. Sink. 5. Meat grinder (electric power). 6. Fish box. 7. Overhead track carrying meat hangers. 8. Metal Shelving. 9. Corridor to general storeroom.

placed in storage the temperature of the room should be fairly high,—between 80 degrees and 90 degrees Fahrenheit if possible. It should then be lowered to between 50 degrees and 60 degrees Fahrenheit and kept as near that point as possible thereafter. It is best to store them in well ventilated bins, but crates or baskets may be used. No attempt should be made to keep them longer than three or four months. Shrinkage will be somewhat greater than for Irish potatoes.

Onions can be kept for about six months, but will show a shrinkage of over 10 per cent. They require a low humidity, but the temperature may be somewhat higher than for other products, providing it is fairly uniform and the room is well ventilated. Bermuda onions cannot be successfully kept in a root cellar. Onions are sometimes placed in cold storage.

Only the most solid heads of cabbage should be selected for storage. All loose leaves should be removed, and the heads should be very carefully handled so as to be kept free from damage. The cellar should be well ventilated and frost proof, the best temperature being just a few degrees above the freezing point, with a humidity range as high as possible without causing a deposit of moisture upon the cabbage. It is best to place the heads in single layers upon slat shelving. Handled in this way, cabbage can be kept in good condition for five or six months.

Few hospitals will be justified in operating large cold storage plants or in attempting to preserve large stocks of food products on their own premises for a great length of time. Such work has become quite scientific and needs to be supervised by experts in the art of cold storage. Foods require different conditions both as to temperature and humidity, and only constant attention by specially trained persons will avoid deteriora-

Fig. 3. Bins for the storage of cereals, coffee, tea, etc. They are made of heavy galvanized sheet steel, with oak fronts. They are of the removable type and may be taken out for cleaning and weighing.

tion of products so stored, with the loss of large sums of money. It will usually be found both safer and more economical to pay storage charges and have such products as butter and eggs, at least, placed in a reliable cold storage warehouse, and delivered from there to the hospital cold storage rooms as needed, in comparatively small quantities. Under this system, butter can be purchased, in most parts of the country preferably in June, in quantities sufficient to last eight or nine months, and placed in storage. About a month's supply should be removed at a time, worked over, and placed in the hospital cold storage rooms for current use. Butter so stored in June will be found perfectly good till the following March or April, or even longer, and the advantage of buying in large quantities, when the quality is best and the price lowest, will be considerable.

Eggs, before being placed in cold storage, should be carefully selected, and should be large and of uniform side. They should be carefully handled to insure their good condition, and should not be washed. Those laid in March or April keep best, and should be marked in order that they may be saved for mid-winter use, while those laid later, probably in June, will not keep so well, and should be used in the fall and early winter months. They are best kept in cold storage, with a uniform temperature as near 32 degrees Fahrenheit as possible, and a humidity range close to 85 per cent. They should be packed in clean wood cases, with new fillers of strawboard or wood pulp board. If padding is used, it should be clean and dry, kiln dried excelsior or cork shavings being the best, with wood pulp board on the top and bottom of each case. Pine excelsior should not be used. If the cases are stacked, a space of about one inch should be left between them. Such eggs should be good for poaching or boiling at the end of six months, and are available for other uses for a year.

Apples are difficult to keep in storage of any kind, and few hospitals will be justified in attempting to store them for a very long time, or in large quantities. If it is desired to do so, they should be carefully selected to see that they are sound, well matured, fully colored, and free from mechanical or other injuries or blemishes. They should be stored as promptly as possible after picking, as a delay of even a few weeks before placing them in proper storage will very materially affect their keeping qualities. They may be successfully kept for short periods in a root cellar, which should be maintained as near the freezing point as possible, but never below it. They may be kept longer in cold storage, with a temperature of about 31 degrees or 32 degrees Fahrenheit and a humidity range of about 85 per cent. In either place they are best kept in barrels or crates, or shallow bins. If in containers of any kind, they should be so stacked as to provide free circulation of air, and they must be frequently inspected.

If the hospital is to provide for cold storage of food products to any extent, it is best to have two sets of storage rooms. One set should be used for storage purposes only, in which the doors need seldom be opened and the contents disturbed as little as possible. The second and smaller set of compartments should be reserved for the daily or current supply, and small quantities of products removed to them from time to time from the more permanent storage rooms. The second plan, Figure 2, illustrates a cold storage department for a hospital, in which such a system can be carried out.

UNITED STATES CIVIL SERVICE ANNOUNCES EXAMINATIONS

The United States Civil Service Commission announces open competitive examinations for the positions of roentgenologist, at $200 to $250 a month; associate roentgenologist at $130 to $180 a month; assistant roentgenologist, at $90 to $130 a month; junior roentgenologist at $70 to $90 a month; and vacancies in positions requiring similar qualifications, at these or higher or lower salaries. For any of these positions the entrance salary will depend, within the range stated, upon the qualification of the appointee as shown by the examination, and the duty to which assigned. In addition to the salary, the appointees will be allowed quarters and subsistence, and laundry, when these are available.

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Applicants should apply at once for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C. Applications will be rated as received until August 1, 1921.

STANDARDIZATION OF HOSPITAL ACCOUNTING*

By R. W. HUNTER, Chartered Accountant, Vancouver, B. C.

The methods of and reasons for standardizing hospital accounts and the beneficial results of so doing are: The large amounts of money expended on hospitals call for the most efficient system of accounting made uniform for comparative study. An active central organization in control of accounts with such subsidiary services as are necessary and a system giving all the information required by those in charge of the operating of the hospitals is essential. The value of accounting must be fully recognized by those in charge of the operation of the hospitals. Every hospital, and hospitals as a whole, will benefit both financially and from the point of view of efficiency by standardization.

THE time is long past when we kept our accounts by cutting a notch or tying a knot to record each transaction, although this method is recorded in the early history of accountancy. Gone also are the days when accounts were written by a chisel on a slab of stone. To trace the various steps in the development of accounting is, however, not the purpose of this paper.

At present we have systems where machinery relieves us of considerable work, and gives better results. We have other systems, which, although mechanical methods are not employed in them, exhibit as great development. Perhaps mention of the convenience of the loose leaf ledger as compared with the old bound ledger, although only one example among hundreds, will be most suitable, as it is something which is generally familiar.

The older times probably did not call for any better system than that in vogue at the time, the speed at which people lived then being much slower than that at which we live today, and the financial and economic systems were not so complex. Business houses, particularly manufacturing concerns, have kept abreast of the times in the development of their accounting systems. There have, however, been many laggards, but even they are now fast adopting the more modern methods.

Have our hospitals recognized this progress in accounting and given effect to it in their systems? Look back upon the past days of surgery when amputations were performed without anaesthetic, the days when the terms aseptic and antiseptic were unknown, the days when the patient died of what was commonly known as inflammation of the bowels, instead of being able to regale his or her friends with the details of an operation for cure of inflammation of the vermiform appendix of the caecum. What would you think if the medical or surgical side of the hospital were conducted today on these old lines?

Do the hospitals realize the tremendous sums of money expended on them not only in the aggregate but in individual cases, that call for their recording in the most efficient manner possible? I am not aware how many hospitals were in existence in the days when each doctor cut a notch in his stick to record a visit chargeable to his patient, nor do I know to what extent the government of the day financially aided such institutions; but I am convinced that the increase in financial aid from them until now, although not in so great a ratio as the progress made in the sciences of medicine and surgery, follows pretty closely. Have we a similar progress in our methods of recording and controlling these finances so that the greatest benefit may be obtained from them? The government in British Columbia spends about a million dollars a year on general, mental, and other hospitals, which approaches an absorption of 10 per cent of the total revenue of the Province.

To record this huge expenditure so that it will be of benefit to us in our operations, our accounting systems must be thoroughly up to date. To administer efficiently the funds involved so that the best results can be obtained from the expenditure, the government must be in a position, for instance, to say to any hospital applying for a grant, your hospital has a larger per capita deficit than other hospitals of similar size, and not only to tell them that the net per capita deficit is greater, but whether the deficit is caused by excessive per capita costs or deficient per capita receipts; and, still further, to tell them which particular section of the costs is high or which particular section of the receipts is low. The government fully appreciates the benefit of standardized accounts as is evidenced by their efforts to collect the forms in use by the different hospitals. To be in a position to make such criticism the accounts and accounting systems of the hospitals of the Province must be standardized. To my mind this point cannot be argued. It is to be admitted, however, that the accounts and account-

*Read before the third annual convention of the British Columbia Hospital Association held in the King Edward High School, Vancouver, June 23-26, 1920.

ing system of a small country hospital cannot be standardized in such detail as a large city hospital and no useful comparison could be obtained by attempting to do so. For the matter of convenience, the general method of keeping the accounts would, in so far as it is possible, be the same; but the details would be different. In standardizing it may be necessary to create two or more groups. The basis of forming such groups will have to be determined by two factors: first, the particular accounting system which will be the most efficient for the hospital involved; second, the possibility of making a useful comparison between hospitals.

It is little realized, except by the most discerning, that the standardizing of accounts and accounting systems of hospitals will have a tremendous effect on the efficiency of hospitals individually and collectively. In the same way that a legal document binds the parties concerned to a definite course of action, so will a definite standardized accounting system automatically create a standard up to which the individual hospitals will endeavor to live. In the report of the committee appointed by the British Government to inquire into the reorganization of the whole of the machinery of government of the British Isles, it was stated that a standard is becoming progressively recognized as the foundation of efficient action. Picture ourselves without any standards of living, what a chaotic state we would find ourselves in! The state of hospitals without standardized accounts may figuratively be likened to society without standards of living.

Benefits From Standardization Are Immediate

Let me give a few of the benefits which will accrue from standardizing of accounts and accounting systems.

(1) The hospital, be it large or small, will see from its own records, which will be kept according to the best standard by comparing month by month and year by year, how it can economize in any particular section.

(2) Each hospital, by comparing its costs and receipts with those of other hospitals in the same group, will see in what particular cost it exceeds some hospitals and in what particular receipt it falls below others.

(3) The central organization or government department will be able to bring to bear critical faculties unclouded by local considerations or conditions, and will be able to offer constructive criticisms based upon its oversight of other hospitals.

(4) A spirit of competition between hospitals of the same group, leading to greater efficiency, will be created.

(5) There will be a psychological effect on the individual employees—employees being used in a broad sense to include all kinds of personal service, be it doctors, nurses, pharmacists, accountants, orderlies, or any other employees—in causing them to appreciate the fact that the hospital as a whole is in competition with other hospitals and will so unconsciously bring them into competition with each other.

(6) The community in which the hospital is situated will begin to appreciate the fact that their hospital is as efficient as other hospitals, and they will be more inclined to support it financially.

Now, each of the benefits, in addition to having a value in service to the patient, has a real money value, which can be utilized still further to increase the efficiency of the hospital, and produce further money values. Each hospital, be it the largest of the city or the smallest of the country, has one if not more ways in which it could make a little capital expenditure, and by so doing save on the cost of operating, or produce a greater service to the patient.

Central Organized Control of Accounting

There is more, however, in the standardization of accounts than the mere keeping of accounts under the same headings and in the same way. There must be a centralization of active control of accounts if standardization is to bear full fruit. In the case of railways the government orders that accounts shall be kept under certain defined headings. In the same way hospitals receiving financial aid from the government or municipalities could profitably keep their accounts on a defined system rather than adopt individual ones. During the war the anti-aircraft defense in Britain became very well developed. Their method was to have anti-aircraft observation stations throughout the country, which, by specially constructed mechanism were able to obtain certain information concerning the approaching aircraft, but it was only through a central control station receiving all the observations from the individual stations that they were able to determine the height at which the enemy aircraft were traveling, the speed at which they were traveling, and when they would reach certain given areas. After each attack the central station was able to trace the whole flight and times at which the craft were over different places, from the time they left enemy lines till they, or whatever was left of them, returned. I suggest the consideration of this principle and its application to the control of the accounts of hospitals.

Since health is one of the greatest national assets, it is logical to conclude that the state should conserve its asset. An active centralized control of accounts by the government must inevitably lead to its active control of the operations of the

hospitals through some such organization as was outlined by Mr. Banfield at your last convention, in his paper "The Duty of the State towards the Hospitals." This must therefore be borne in mind when it is decided whether the central organization shall exercise an active control or be merely advisory. The standardization of accounts with only an advisory central organization will not realize the maximum benefit. The central organization should draw up the necessary forms of books and reports, and from the point of view of economy, have them printed and issue them as required to the individual hospitals.

Fundamentals of Accounting to be Observed

There are certain essentials which any system of accounts must contain to be efficient. The most beautiful accounting system in the world, from a theoretical point of view, might be in existence, but it would be failing if it did not give those in charge of the operating of the hospital the information they want, in the way they want it, when they want it. It goes without saying, of course, that the accounts have to be kept in such a way as to show that the funds are all accounted for. The accounts of a hospital should be run as if the hospital were a business enterprise and go into quite as much detail as if the hospital were being operated by the keenest of business men.

The detail of how these accounts should be kept in each hospital must be worked out by those in charge of the standardizing of accounts, Suffice it to say that the larger hospitals will only be able to reap full benefit if their accounts are kept showing each department separately.

The accounts of hospitals should exhibit the moneys received, its transformation into fixed assets such as plant, buildings, and real estate, into labor, material expense and the subsequent transfer of the combined product, which is service to the patient, to accounts receivable, and finally their transfer to cash or uncollected accounts. The processes of transfer should be most carefully recorded in all their stages. Even the physical inventory of the plant should be as carefully kept as the cash book.

It will require very careful study to evolve the standardized forms and records, and care must be taken to see that no hospital be put in the position of having to attempt to conform to a standard set of accounts which is not of use to it. Yet no hospital should say "Our hospital is different from any other; we cannot conform to a standardized system of accounts." At school in Scotland, in our arithmetic class, we had to find the L.C.M. (lowest common multiple), I do not know what you call it here) of certain given numbers, which, it is not necessary to explain, is the lowest number into which all the given numbers could be divided. If I remember correctly, this problem was accomplished by finding the factors composing each number. Accounts are as capable of being scientifically analyzed as samples in the chemical laboratory, and I have no hesitation in saying that if standardizing be properly carried out, you will be able to erect a monument to your old accounts and inscribe on it the epitaph which appeared over the grave of a none too popular lawyer in his little home town—"Here lies the body of John Brown—Everybody satisfied."

In order to reap the full benefit from standardized accounts it is essential that they be properly kept, and regular returns made to the central organization. In the large hospitals this should present no difficulty, as there are already trained accountants on the staffs. In the smaller hospitals, although care would be taken to have the system as simple as possible, I would suggest that the treasurer of the board, if the institution is too small to employ even the partial services of a bookkeeper, be conversant with accounts, and that he keep the records. This, however, is a matter for each hospital to settle for itself.

Standard System of Collections Desirable

Under the heading of "accounts" comes the laborious and working matter of collecting amounts owing by patients. In standardizing the accounts, I would recommend that as far as possible a standard system of collections be adopted.

I suggest that the responsibility for collections, once the patient is outside the hospital, be assigned to a particular member of the board, who in the case of a large hospital would have his staff of collectors, and, if the hospital were small, would make the collections himself. A central organization of all hospitals could receive lists of persons owing accounts who have moved away and would forward such for collection to the district to which the person had gone. A system such as this would operate to the benefit of all hospitals.

I have touched so much on the question of central organization that I cannot refrain from making a suggestion, which although absolutely outside the sphere of my paper, is brought forcibly to mind in connection with the recommendation that books and forms be printed by the central organization. My suggestion is that a central purchasing agent be appointed for all hospitals, or at any rate the smaller ones. This would save a considerable amount of money, for by being able to place orders for large quantities of

supplies, they could be obtained at very low prices. I understand the Provincial Government have found that their appointment of a central purchasing agent for most supplies has proved to be of considerable benefit. I see by the title of the paper of Mr. Leders, who is following me, that my suggestion does not interfere with the subject of his remarks.

However, to get back to the subject of this paper, "Standardization of Hospital Accounting," another point has to be referred to. When I had the privilege of going through the systems of some of the larger hospitals in Canada, I learned something new in each one. My greatest education was in the Royal Victoria Hospital in Montreal. There I had the honor of being conducted through the hospital by the assistant matron, and very efficiently did she cover the ground. It struck me very forcibly that I was looking at things through the spectacles of an accountant, whilst she viewed them through those of a matron. This set my mind working in order to discover how many points of view there are in examining a hospital. The accountant, to conduct efficiently his department, should not look at matters solely from the accounting point of view, neither should the doctor's outlook be purely medical. Each should fully appreciate the standpoint of the other, and in this way only can the full benefit be obtained from accounts.

Good Accounting is a Real Investment

In the olden days, those chosen to keep accounts in business institutions were not considered to have the same standing as those who were on the operating end. The progress of business affairs has, however, changed this, and the man who now has charge of the accounting end of a business concern is of a much more highly developed type of mentality. In past days this was not appreciated by business institutions. Accounting was looked on by all except the most discerning as a necessary evil, and it was considered that the less money that was thrown away on it the better. As a matter of fact, money spent on a properly efficient accounting system produces returns out of all proportion to the expenditure involved. I am glad to say that it is becoming increasingly evident that the value of the man on the accounts is being better recognized. It is surely a grave omission if finance is not considered as one of the chief factors in the successful development of business enterprise, and finance goes hand in hand with accounts. Not only in business enterprise, but in hospital affairs, be the hospital large or small, must the value of the man on the accounts be properly recognized. Don't let your accountant be a stenographer to take down the results of a post mortem on some expenditure. Let him cooperate in the making of expenditures. One example of the benefit which would accrue can be evidenced in the following example. When a certain capital expenditure is to be made the accountant examines the proposal with a view to ascertaining whether it is for one of three purposes: the purpose of saving money, for the general efficiency of the department concerned, a necessity from a humanitarian point of view.

Despite the funds being low, the accountant would then unhesitatingly recommend the expenditure if it fell under category one. If the funds were low he would demur if it fell under category two. If it fell under category three, he would take it up from a charitable standpoint, and have it financed from outside sources. As a result, the hospital finances would be greatly benefited, and the hospital efficiency inevitably increased. This is only one of hundreds of ways in which the man on the accounts can be of benefit to the hospital.

Just a word of warning is perhaps necessary. In standardizing the accounts do not forget the human element—the factor which as such does not appear on the books—your guest of honor, the patient.

JAMES WHITCOMB RILEY HOSPITAL

The legislature of Indiana has passed the bill authorizing the establishment of the James Whitcomb Riley Hospital for Children in the city of Indianapolis. The board of trustees is authorized to build and equip an institution to care for not less than 200 children, with offices, quarters for officers, nurses, and employees. The hospital will be a department of Indiana University, and will be under the control of the trustees of this University. The James Whitcomb Riley Memorial Association plans to raise funds to supplement the state appropriation, and according to present indications, sufficient funds will be available to enable work to be started on the first unit during the summer or fall. It is hoped that the hospital will be ready for opening on October 7, 1922, October 7 being the anniversary of the birth of James Whitcomb Riley. The Riley Committee expects that $1,000,000 will ultimately be raised for the buildings. With this new hospital on the same grounds as the new building of the Indiana University School for Medicine and connected with the Robert W. Long Hospital, the trustees feel that they will have a medical center worthy of attention throughout the country.

STOP-OVER ENABLES YOU TO PAY VISIT TO HOSPITALS

Routes to the American Hospital Association conference at West Baden in September will be through Chicago, Indianapolis, St. Louis, and Louisville, and the ordinary stop-over time limit of railroad tickets will permit as much time to see the hospitals in one of these cities as is ordinarily given for this purpose at any conference. The fact of meeting away from a hospital center does not, therefore, deprive the delegates of this important part of the trip.

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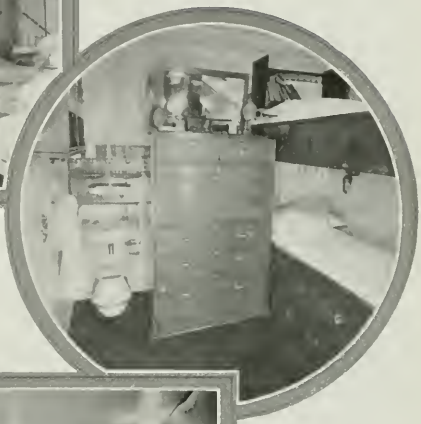

Nurses' state room

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THE COMMUNITY HOSPITAL

THE community hospital is becoming a social, economic, and medical necessity, by reason of two forces which are working together. One is the hard road which is lengthening the individual's radius of action. The other is the disappearance of country rural practice.

The tendency is growing, among the sick, to seek the hospital when bedside attention is required. Otherwise, what we know by popular education about disease, diagnosis, and personal hygiene, combined with the office, dispensary, and telephone, renders unnecessary much of what used to be the regular routine of country practice. With good roads and automobiles at their disposal, the people of a very large area may now take advantage of a hospital which a few years ago served only the city or town in which it is located. It is as easy with good lines of communication for a hospital to extend its service over an area of fifty or seventy miles in radius, as it once was to meet the purely local needs.

The medical graduate will not go into the country. Rural practice is almost a thing of the past in many localities. Even the older men are abandoning it for the easier and more lucrative work in the cities. There is a shortage of doctors in general practice. The demands for the few are great enough to absorb them in the centers of population. The rural sections are being drained of their doctors and the graduates are not taking their places. They want to remain in the cities where practice is easier, fees are better, social and professional contact is possible, and hospital facilities are at hand.

The solution of the problem seems to be the community hospital, serving a county, or even a larger unit, built and maintained, perhaps, by direct taxation, and open to all the sick at fees that will meet the expense of its operation.

It need not be equipped for the specialties. These can usually be cared for in the private office and private practice.

If the hospital in the community is a private enterprise, and the only one, it should assume the responsibility that is plainly marked out, and serve that community to the full extent of its needs.

The stability of rural life, which is one of our serious economic problems, depends in part upon its ability to get the very best medical and surgical care and treatment.

WINNING THE PUBLIC INTEREST

THAT the hospitals of the country, particularly those lacking publicity programs of their own, stand in need of, and would welcome, a comprehensive, nation-wide plan of publicity, is evident from the interest that was so readily aroused in the celebration of "National Hospital Day," on May 12. To those who were active in promoting this idea, unstinted credit is due. It has served a useful purpose as an initial, though far from general, awakening of the public to the work and needs of our hospitals.

The hospital field, however, has so many ramifications, and plays such an important part in our social economy, that some of the leaders in the field seriously question whether the annual celebration of a National Hospital Day, at a time when special days are multiplying so rapidly, will adequately meet the publicity needs of our hospitals. Is not a more sustained and authoritative plan called for, a plan into the accomplishment of which can be mustered the united prestige and facilities of the great national hospital organizations, such as the American Hospital Association, the Hospital Library and Service Bureau, the Catholic Hospital Association, and the Protestant Hospital Association, working through and in cooperation with the American Conference on Hospital Service?

Sponsored by these organizations, there is no limit to the beneficial results that would accrue to our hospitals from a thoroughly matured and capably directed plan, which would place before

the public authoritative information as to the important services our hospitals are rendering, enlist the cooperation of public-spirited men and agencies in interpreting the hospitals to their communities, and give the public the opportunity to learn, at first hand, how the sick and injured are cared for and treated.

LEGISLATION IN THE NURSING PROFESSION

IN THE session of the Illinois General Assembly, two years ago, legislation on the subject of nursing was one of the hotly contested issues. Lobbies were present representing those who stood for very high educational qualifications and the three years course, and those who wanted the entrance requirements and the course reduced.

At this year's session of that assembly, now about to end, the nursing question has scarcely been mentioned. Certainly the change has not been produced by a solution of the nursing problem in the two years of elapsed time. On the contrary, the situation is more serious than it was then, and improvement is not in sight.

One of the largest and best equipped general hospitals in Illinois started its freshman class a few days ago with only seven pupils. Reports of similar indifference among young women towards the nursing profession come from every section of the country. A profession that has been almost deified, and whose financial returns and conditions of service have improved since the war, appears to be more neglected than ever.

Meanwhile the homemade nurse, taking a correspondence course, or six weeks' instruction of a superficial character, is increasing at a tremendous rate. According to reports, these nurses are able to secure as good salaries and as favorable conditions of employment as the registered nurse, though they are excluded from places where the certificate is recognized and demanded.

In the large cities, where most of these so-called practical nurses are employed, they find no difficulty in passing muster with a diploma signed by names that are known, and the term "graduate nurse" may be interchanged with "registered nurse" to the deception of the uninformed or ignorant. It is unlawful for a nurse to represent herself as registered when she is not, but there is no penalty for telling others that she is a "graduate" nurse, when she can prove it by showing a flashy certificate.

When the young woman, after six weeks of the most ordinary instruction, can get by as a "graduate," why should another work through the high school, and labor through a three years' nursing course, with its hard duties, long hours, and meager wage, to acquire no more substantial returns?

The condition is developing which is going to demand legislation to protect the public from nursing imposition, and safeguard those who have qualified for the degree of registered nurse. The plan which provides various grades of nurses, based on educational qualifications and character of service to be rendered, is growing in favor. In its simplest form it creates two classes of nurses, one very much higher than the other in preliminary requirements and technical training. It includes penalties which will prevent misrepresentation and fraud. To practice nursing for pay without license will become unlawful, but it may be possible to make a legal status for the so-called practical, home or graduate nurse.

Recently it has been suggested that a third grade of nurse be created, which would include the short course graduate, but would prevent her from acting in any more serious capacity than that of an attendant. Indeed, there is much sickness in the hospital and elsewhere which may be cared for by such an attendant, releasing the pupil and registered nurses for the more difficult subjects.

It is evident that the law must recognize in some manner the attendant, and the short course, or practical nurse, and prescribe where and how she may practice.

It has been possible to restrict the registered pharmacist to the channels for which he has been educated and licensed, though the temptation to practice medicine for medical fees, without doubt, is often very strong.

Nursing must sooner or later be recognized legally as a profession. The public must be protected from fraud and misrepresentation, and those licensed under the laws must be regulated and restricted to their respective fields.

ATTACKING OUR HOSPITAL SYSTEM

CRITICS of the government's care of sick and disabled ex-service men, in their efforts to wake up the authorities, are very seriously injuring the legitimate hospital system of this country.

It is not uncommon to hear men of high position denounce the hospitals in which ex-service men are quartered, as "unfit for habitation." The critics of the government never specify which hospitals they are speaking about, and the names of the unfit institutions do not appear. The accusation, therefore, seems to be aimed at all, it is so general and so sweeping that the public would be justified in believing, if it did not know better, that American hospitals are "unfit for habitation." If they are unfit places for the care and

treatment of military cases, then they are also unfit for civilian sick, and, if our hospitals are unfit for either class, our American public has been grievously deceived.

With the proposition that it is the duty of the Federal Government to furnish hospital facilities for all military sick and disabled, even to rehabilitation, no one will take issue. The care and treatment of ex-service men is a national function. The states should leave it alone. When they attempt to supplement or duplicate national efforts, they are only complicating matters. Our government is big and powerful enough to handle this proposition without the states' assistance, and it can do it just as expeditiously.

But this is off the road. In their demands that the Federal Government assume its responsibility, it is not necessary for the critics to libel and malign the hospitals of this country. Neither our general hospitals of a private character, nor our state hospitals under public administration, deserve the epithets hurled at them. Fortunately, the public knows better, and, for that reason, unfortunately does not give as much heed to the just demand that the government perform its duty.

Hospital facilities are limited, it is true. Hospitals, both state and private, are crowded. No better expression of confidence is possible than the fact that such public faith in our hospitals is growing faster than the funds with which to make expansion. The American hospitals are without equals in the world. In every activity in which they are supposed to participate they are meeting every expectation and justifying every hope.

We do not believe the American people endorse these attacks on the hospitals. It is our belief that they resent them. The end which these campaigns have in view is legitimate; but they will not succeed when falsehood is resorted to, or when an institution, which is so thoroughly established and so favorably known, is attacked with such malevolent tongues.

CONCERNING COLORED HOSPITAL WALLS

THE white hospital wall is doomed to go. It is cold, cheerless, negative. Man instinctively loves color. He loves it when he is well and he is benefited by it when he is sick. He is benefited by certain colors not simply because they create pleasurable sensations, but because they make for mental well-being and bodily health. The positive therapeutic value of color is becoming increasingly evident as we advance in our scientific knowledge of it, and in our skill in using it as a therapeutic agent.

In discussing this subject before the London Dermatological Society, Dr. Howard Kemp Prossord contended that in hospitals colors should be used which suggest to the mind spring, the time of life and recuperation—colors such as sunlight yellow, sunlight primrose, firmament blue, spring green, anemone mauve, and apple blossom pink. For the wall of a room occupied by neurasthenics, for example, he advocates sunlight yellow, firmament blue or light green, because of their curative power in cases of this type. Neurasthenia creates fear in man's mind. This being true, we must look for colors which will generate in the patient's mind strength and courage, colors that will give a strong mental and physical reaction, colors that suggest life.

In our own country one of the staunchest advocates of the use of color in the decoration of the hospital, for its therapeutic value as well as its pleasurable effects, is William O. Ludlow, whose article on "Color in the Hospital" appears on page 511 of this issue. While disclaiming any desire to advocate equipping, furnishing, and decorating hospitals like homes or hotels, Mr. Ludlow does advocate our getting away from the sterility of pure white, and adopting the use of such colors in decorating and furnishing "as will give warmth and quiet, and that gentle stimulation that helps the patient along the road to recovery."

If colors have a varying therapeutic value, hospital authorities should acquaint themselves with scientific progress along this line, and make a practical application of this knowledge in their own institutions. May it not be that the dazzling, cheerless whiteness of our hospital rooms is no mean element in keeping the sick, who should receive hospital treatment, away?

SEND IN YOUR SUGGESTIONS

THE request of Dr. L. R. Baldwin, president of the American Hospital Association, for suggestions regarding the program of the annual convention to be held this September at West Baden, Ind., should not go unheeded. Members who feel that certain subjects should be discussed, can contribute their share towards making the convention a success by sending their suggestions to Dr. Baldwin. The earlier the suggestions are mailed, the more time will he and his co-workers in charge of the program, have to consider them carefully, with a view to formulating a well rounded practical discussion.

The Association is to be commended for acting on the suggestion that at least one general evening session be devoted to an address by some one of national importance. This is bound to react favorably upon the Association in helping to make its work more generally known.

HOSPITAL CONVALESCENTS IN THEIR HOMES*

By MARY STRONG BURNS, R.N., Cleveland, Ohio

IN attempting this study, two things are very quickly apparent: (1) that convalescence is as much a state of mind as of body, and that environment which does not provide for the needs of both is inadequate; (2) that the background of convalescence is laid, the texture of it stretched and woven, while the patient is still lying abed in hospital. His mind is a sensitive shuttle threading with tireless insistence every impression of the hospital ward, whether, grave, radiant, trivial, or profound, and coloring each with his mood of the moment. In the "date of discharge" (when shall we find a more gracious phrase?) the patient takes this mental "sampler" and during the time that he must "remain inactive," as the house physician says, he wonders over it all. If left to himself, he makes few alterations in this plan of return to health which the hospital has spread out for his interpretative copying. Every impression is traced and retraced and his conception of health, and of his part in holding it, is framed in his idea of hospital service, and remains pictured as a never-to-be-forgotten experience.

In seeing over two hundred such "pictures" one could often exult that the hospital had been interpreted favorably and with gratitude. When the interpretation had been distorted through mutual distrust and misunderstanding, regret was always followed by the conviction that a broader conception of the hospital's responsibility was possible, indeed necessary, and that it would more and more make the way straight for patient and hospital alike. Two points of view will illustrate: (1) A Polish woman, after three weeks in a hospital ward, thus voiced her opinion on the Cleveland Hospital Bond Issue, "She is like a great and wonderful mother who cares for many sick children, this City Hospital. If more money she needs let us say yes and give." (2) A man sensitive at being temporarily without money bitterly resented the hospital's attitude that he should pay his bill there because he had hitherto paid his private doctor, "Why would they think I should go to that place if I could any longer pay a doctor? Would anyone go who did not have to? I burn with shame when I think what questions they ask."

Thus convalescence is the state of mind and body on which the hospital may set its stamp as a friend and helper, or as an autocrat without sympathy. The real service to the patient is but half done on the date of discharge. The test then comes, to decide whether the final stage of convalescence shall be to each of its patients a stimulating, worth while experience, or a lonely and difficult task to be faced against great odds.

The cases studied were two hundred discharged patients from four of the principal hospitals of Cleveland: Charity, City, Lakeside, and Mount Sinai. They were nearly all classified as free or part-pay patients. A few had apparently paid the full charge for treatment. They included a variety of foreign nationalities, of which Cleveland offers many: Armenian, Australian, Bohemian, Chinese, Greek, Italian, Lithuanian, Polish, Slovenian, Swedish, etc., and a number of native American whites and a fair proportion of negroes. The environment of patients seen ranged from that of wretched housing and extreme poverty to the completely comfortable house of the well to do.

*Reprinted in part from Cleveland Hospital and Health Survey Report, Volume X.

The types of illness from which these patients were convalescing were contagious and general diseases, surgical operations, and accidents. There were also a few maternity cases. Their length of stay in hospital varied from five days to two months.

Half of the cases were seen within three to four days after discharge. The others were seen within ten days after discharge with the exception of six surgical cases who had been told not to resume work for four weeks.

In the homes the reaction of the hospital upon the patient was noted: (1) whether the diagnosis and medical advice had been understood, and was being followed with satisfactory results; (2) whether assistance of any sort would more certainly assure the result for which the hospital had worked. In a word, was the best sort of convalescence possible for that particular patient in that particular home?

The convalescents seen were classified as follows:

Cases with Home Environment—	Total Cases	Total Per Cent.		
1. Favorable and adequate	25	12.5		
2. Favorable with minor adjustments, economic or personal	71	35.5	59.5	87.5
3. Unfavorable but remediable by economic or other assistance	48	24.0		
4. Unfavorable and not remediable, needing institutional care in convalescent homes	44	22.0	28.0	
5. Acutely needing further hospital care—relapse after return from hospital	12	6.0		
	200	100.0%		

Thus, with only 12.5 per cent in surroundings favorable and adequate for convalescence, the remaining 87.5 per cent of these cases returned to homes which were unfit in varying degrees for their convalescence. With proper advice or assistance, conditions could have been remedied in about two-thirds of these cases (59.5 per cent of the total number), while with the other third (28 per cent of the total number) conditions were irremediable and the patients required institutional care in convalescent homes or still longer care in hospitals.

Even a superficial contact with the various types of lodgings, rooming houses, and rooming hotels, with their forlorn attempts at light housekeeping, brings swift conviction that they can never offer a fair chance to convalescents. The atmosphere of isolation, the indifference as to what happens to the lodger after he pays for his room, the long flights of stairs to be reckoned with whenever a meal is needed—these, aside from the unwholesome living conditions, proclaim the lodging system as "fatiguingly futile" for convalescent use. The patients themselves evidently realize this fact, and many did not return to their given address. Others had never lived at the given address, but had been known to the owner of the lodging house or to some of the lodgers. A few gave an impossible street number selected with evident care. The Salvation Army, the City Mission, a corner store, or a former saloon will sometimes be given as an address where nothing definite could be remembered of the patient. One man was found on the corner near the restaurant which he had given as his address and explained there was "generally someone round that corner who knew where he hung out." Such were the frail links to home and the greater reasons for convalescent care in institutions or at least for continued hospital supervision.

Another tremendous claim for convalescent supervision of the most far reaching and efficient sort was made by

the fact that many other patients came from homes which were totally unfit for convalescence or continued health, unfit for the minimum requirements of normal living—on the edge of the dump, in gullies thick set with smoke, in leaky shacks, the cracks stuffed with newspaper and the room reeking with kerosene fumes, in dark tenements, four or five of which would open on a court filled with the accumulated refuse and garbage of the winter, where the convalescent child was left to "play."

To the patient with a problem waiting at home, institutional convalescence, however luxurious, has little charm —"For what good should I go away. The worry for the kids would go with me," said a mother amid a clutter of babies, washtubs, and general disorder. "This is the best for me here." Her peace of mind arose triumphant over the scene of distraction, for her problem was within her grasp.

Among the patients of all four groups were some who had been treated at two or more different hospitals for the same or different causes—the patient, not having mentioned this in giving her medical history at the hospital because she did not know, or "was not sure how to tell it," and thought "the next doctor would find out." In large families the hospital affiliation was widespread, several hospitals having been used by three or four members, and experience meetings, when all talked at once, brought out a variety of hospital lights and shades. This suggested the possibility of extending the scope of the Social Service Clearing House to include on its registry cards a note of any dispensary or hospital care which the patient had received, the technical details to be furnished by each medical agency as the occasion arose, as the patient is often unable to give an accurate account of past illness or surgical operations.

Patients Want Instruction

The very prevalent protest of the women patients against being kept in ignorance of the nature of their surgical operations deserves a word. The patient wants to know how she stands physically, even if she faces a serious handicap, and she can the better adjust herself to meet it if informed. The hospital service which shirks, evades, or refuses this after-treatment so necessary to the peace of mind and progress of convalescence has put the hardest part of the operation and its results on the patient, and has missed its best chance of rehabilitation.

The general feeling of these women was that they had had the benefit of wonderful surgery, but were no wiser than before the operation as to what had been the matter with them, or what was to be done to prevent further difficulty. The "head doctors" or attending surgeons were described with awe, yet regret, as "too important to be bothered"; "he's so busy he can't listen"; "it seems he's not the kind of a man to give you much talk."

A gynecological case returned to her home without instruction from the hospital, and within two weeks had house cleaned her tenement, painted furniture, papered two rooms, and was doing the cooking under a sloping ceiling too low to allow her to stand upright at the stove. The doctor having said she was "all right," she did not understand why she felt worse than before the operation. Concluding it was all a failure, she had begun treating herself with Lydia Pinkham's remedy because the newspapers said it would help anyone who felt as she did, and she didn't want to waste any more money on the hospital.

Of the women who were uninformed as to their condition only one had not asked to know. At seventy years of age she was tranquil and not inquisitive.

The men also had doubts. A neurasthenic, aggrieved at the little attention bestowed upon him at the hospital, had gone home to a combination of quack electrical treatments and doses of No. 99 at Doctor Simpson's Medical Institute. His protest was, "Why didn't the doctor say what would do me some good?"

Another impression noted among the women was remembering the fatigue of that first complete dressing to leave the hospital. Apparently this was often done without assistance, as the nurses had other duties and the friends of the patient were not allowed to come to the ward. An old negro woman with an aortic aneurism was sent home from the City Hospital on the ambulance stretcher. She described the fatigue of preparation and added, "The head lady nurse told them, 'Don't bother if it is a hospital gown—let her go while the spirit is in her.' I sure was grateful. She certainly had wisdom, that lady nurse."

Two other shadows of convalescence were: (1) the long uncertainty and final disappointment over the amount of the hospital bill, and (2) the fact that patients sometimes came away resentful because they had been the "interesting case" used to teach others. They felt that they were being detained in hospital for this purpose.

These may seem minor details in the immense and complex scheme of administration which the hospital must embrace, but with the sensitive imagination of one half sick, "behold, a little cloud ariseth" and the whole of his convalescent sky is darkened.

The amount of the bill could be approximately decided before the day of discharge, and preferably nearer the day of admission, so that this "indeterminate sentence" might be cleared up. If the patient has not been able to pay, it is perhaps not the happiest sort of *envoi* to have "the last one you see at the front door saying, 'I hope you will be able to work soon and pay your bill.'" Social service at the front door might perhaps have given the deft touch to incentive which would have brought the patient to say as much for himself, with gratitude and courage.

Still other types bespeak the follow-up work of the hospital. The drug addict, returning to lodgings with little moral support; the child with chorea celebrating her homecoming with a "regular meal" of coffee, sausage, and pie; the heart case who has spent most of his small life in hospitals and pleaded, "Oh, Muz, my business is always hospitals! Can't I stay home and get well?" the fourteen year old runaway with mumps whose pride had thus resented his being put in the "kids' ward" where his feet stuck out through the bed bars; the child of five whose mother had never been able to find out from the hospital what its illness had been—these and many others proclaimed their necessity for further care without which a large part of the hospital's work goes for naught.

Many hospital records were marked, under "instructions" "none in particular," which probably indicated that the case did not stand out in the mind of the doctor as needing any instructions other than those of routine convalescent care after pneumonia, a laparotomy, or whatever else the disease or operation might be. The patient, however, assuming this rôle for the first time, finds everything strange about being "a pneumonia" and things stranger still as "a laparotomy." He is full of interest in himself. He wants to make a success of getting well and there are many questions to which he wants to know the answers. He is hoping there will be time for one of the doctors to have a talk with him about it all before he leaves the hospital. But often the last day comes unexpectedly, his bed being needed for a more urgent case, and he finds himself at home, several miles from the hospital, wondering why he managed to find out so little

of what the hospital knew so well. When special instruction had been given the patient on discharge, the effect was almost magical. To have been instructed to carry on what the nurses have begun, to have responsibility for one's own treatment, gave a new zest and importance to convalescence.

Often the patient must either resign himself to a reduced "health bank account" or remonstrate at untoward conditions; again, the uncertainty as to what his depleted strength is equal to, makes any definite undertaking precarious. This is no time for platitudes in words or actions. No "return to dispensary" slip will fill the need. Advice to "rest and take it easy" will not answer. Reinstatement into the type of life to which the patient is equal must be wisely planned and the very present helps of community life pressed into service, so that the thrill of ambition, the impetus to new life which rightfully belong to convalescence may not be entirely lost.

Possible means by which the hospital may assist convalescence in the home are here suggested:

1. Treatment and instruction in hospital towards securing the patient's confidence and cooperation—the instruction to include understanding of present illness and means of preventing recurrence.

2. Making with the patient a definite plan for his aftercare and reinstatement into active life, and enlisting his best effort to carry out such a plan.

3. The function of the Social Service Clearing House might be broadened so as to include a record of dispensary and hospital treatment received by the patient, with names of institutions and dates. This record could be used by medical agencies concerned as occasion requires.

4. The function and value of the Convalescent Home, when suitable and available, should be explained to the patient as an opportunity.

5. Social service, if a convalescent home is not available or desirable, should create the same essential values of convalescence in the patient's own home.

6. Teaching the patient while most receptive to suggestions—because of recent contact with the hospital technic of sanitation—how he may further the hospital's work to insure permanent good health. This would include the use of dispensary and other hospital resources, as well as of the family physician.

A patient thus successfully involved becomes a valuable field agent who will set forth the work of the hospital in terms of appreciation which his neighborhood will not fail to understand.

CHICAGO SERVICE LEAGUE RESTORES HANDICAPPED TO INDUSTRY

THE Service League for the Handicapped, in Chicago, is "organized effectively to reconstruct, reeducate, and re-train the handicapped from disease or accident, and to replace them in self-supporting positions." It is the object of the League to re-train the handicapped along the lines in which they were useful before they became handicapped, thus restoring to the community as much of the service and efficiency that belonged to it before, as it is possible to do. The mental effect of this method is also good, for it is more normal to go on doing as nearly as possible the same thing that one is used to doing than to have the new conditions emphasized by taking up a strange vocation.

Basket making is one of the chief industries of the training school.

The scope of the League is supposedly limited to Cook County, but sometimes cases are taken care of which are sent in from outside. There are 5,500 disabled persons in Cook County, that is, civilian disabled, with whom the League is concerned, the government, of course, having charge of the disabled ex-service men. That means that 2 per cent of the population is disabled, a proportion which is borne out by practically all the surveys on this subject which have been made. It is hard to realize that every year, through accidents in industry and elsewhere, as many cripples are created as the total of our disabled from the war, and there are three hundred thousand men who have been disabled in the war, now being re-educated by the government. What the disabled man, woman, or child, wants is not charity, no matter how well meant it may be, but a chance to work and be a real person again. This is the reason for one of the League's slogans, "Not charity, but a chance." The League is not an employment agency, its object is the re-education and re-training, and placing, of those in need of assistance.

The League has an executive board of fifteen members, a large medical board, whose services are free, and a director, who gives his full time to the work. The offices are at 15 East Washington Street, Chicago.

The applicants come to the League from many different sources, including the Red Cross, charitable organizations, and individuals. From one small notice in the paper a large number of people heard of the work and came in. Hospitals send people whom they are discharging unfit to return to industry in their present condition. There is no trouble in getting the people the difficulty at this time is in finding positions in which to place them after they are "got," and in collecting the funds to make the necessary wheels

This suitcase stand was made in the League training school, except the straps, which were done by home occupational cases.

go round. When the outlet has been increased it will be possible to increase the inlet of people to be cared for, through the hospital committee which now exists, and find the people needing attention before they leave the hospital. A number of the larger industries in and around the city have departments to care for the disabled, so they do not supply as large a proportion of the League's applicants as one might think. These departments, however, are not organized primarily to re-educate the handicapped, but to find them another position, usually a minor one, in the company. Some day the League hopes to combine all of this work of the industries in one office, thus saving a great deal of overhead to say nothing of putting the work on a better basis.

The minor industries which cannot afford to maintain such departments send many of their people to the League. The real problem before the League at present is to get in touch with the industries, so that the people will be sent to them, and so that they will be able to place people in positions best suited to them. The director is getting in touch with the industries through personal calls and through correspondence.

When a man comes into the League he is given a registration blank to fill out, giving the usual information concerning education, the cause of the handicap, treatment undergone, former employment, and references. He is then sent to one of the members of the medical board who are connected with various hospitals of the city, for a free medical examination. This diagnosis determines the man's classification. If he needs hospital treatment, or observation in a hospital for a time, he pays three dollars a day if he can afford it, if not, either the League pays it, or a free bed is secured. If the man needs re-education, he is put in the training school which the League maintains. If he can be placed immediately, and a suitable position is available, that is done.

The shop is carried on more from necessity than choice, the real idea of the League is re-education and placing of its people. Placing in such slack times as these is of course very hard. During the month of February only twenty out of 131 applicants could be placed.

There are several departments of the training school. One is brush making, another basketry, there was one in toy making but this was discontinued, as this industry offers a poor livelihood, and the object of the shop is to re-train the men for earning their living when they return to competitive work. A rather new department is the one for lamp shade making. Two instructors are engaged here teaching ten or fifteen women to make beautiful shades, which sell for good prices, and which will be a remunerative occupation for them in the future. This connects up with one of the departments for the men, the making of luster ware. China is bought in large quantities and the men apply the luster and the china is baked three times. The lamp standards are made of this ware, and the electrical parts are also assembled in the shop. There was an exhibit of this very excellent work in one of the most prominent windows in the downtown district of Chicago during part of the month of March. Another department of the shop does typing, and the workers are paid two dollars a day. The rate for the rest of the workers is fifty dollars a month.

Five styles of brushes made by men in the League training school, also by home cases.

These are some of the baskets made in the school.

There are often thirty-five people employed in the shop and it is easy to see the expense which this entails. There are several instructors, one in rug weaving; one in fancy work; one in carpentry, brush making, and basket weaving; and two in the lamp shade department. One of the cripples is the foreman of each department.

The handicapped are classified according to the character of the position wanted: factory, store, business, mediocre (door tending, elevator man, etc.), and field (farm or outdoor work). The League has a list of 200 firms in Chicago and from this list an effort is made to pick out those most likely to have the desired position, and to place the applicant there.

Dolls' furniture made in the training school.

Some home work is done in connection with the shop, if the cripple is unable to leave home. The foreman of the department of brush making, for instance, will take a "brush kit" and go out and visit a boy who thinks he would like to make brushes. He spends part of a day teaching the boy, and leaves enough material to keep him busy for a couple of weeks. At the end of this time the brushes are collected and more material left. The League then sells these brushes and pays the boy for making them. A good worker can make about eight or nine brushes a day.

The League has orders for brushes, re-caning of chairs, baskets, etc., from different firms in the city. An effort is made to have orders ahead so that the workers can always be kept busy, and be sure of selling their products.

MOBILE DENTAL UNITS IN NASSAU COUNTY

By MARION WILLETTS BROWER, Chapter Chairman, Junior Red Cross, Mineola, N. Y.

IN REVIEWING the Nassau County Junior Red Cross dental project, carried on during the school year of 1919-1920, it is felt that a practical solution has been found for a national problem. The project was worked out in the following way. During the war, the Junior Red Cross had as its auxiliaries seventy-eight schools in the county, and the young members did remarkable work. When the greatest need for war relief was over, the school men in Nassau County suggested that the organization take up health work as a peace program. Nassau County has many villages and townships but no large city. The New York State Medical Inspection revealed alarming physical defects among the pupils in the country schools, the greatest trouble being the condition of the teeth. Ninety per cent of the twenty-five thousand children of Nassau County needed immediate attention, and it was decided that this was the angle from which to attack the health problem.

A dentist, Dr. Vincent T. Meaney, was engaged, and, on the day school opened, in September, 1919, Dr. Meaney began work in Roslyn. It had been decided that as it was so difficult to get the children to the local dentist, the Junior Red Cross dentist must go to the children. A Ford delivery car was bought and "Junior Red Cross Dental Education Car" painted on the side. A portable dental equipment was gotten together, a chair which required both the dentist and the janitor to carry it from the car to the building, instruments, and instrument case, foot engine, and sterilizers for the instruments. Before the work had fairly begun in Roslyn, requests had come from so many of the schools in the county that it was necessary to engage more dentists. At the end of the school year, six dentists were at work, two cars were owned by the Junior Red Cross, and one dentist was paid mileage for driving his own car. As the work progressed, an x-ray machine with a Coolidge tube was purchased and used very effectively. Some of the schools did not have electricity, but a small kerosene stove with a saucepan proved a fine substitute for the electric sterilizers.

The clerical work was made as simple as possible, and has not been changed. First each school is sent an application blank reading:

"Junior Red Cross
Mobile Dental Service

I hereby apply for the services of the Junior Red Cross dentists. I have approximately.....pupils needing dental work.

Signature of Principal.....
Name of School....."

When this is returned to the Red Cross Chapter House, a date is fixed on which the dentists will go to the school. On that day, a dental education car is sent out, usually with two dentists. As they examine each child, the defects are jotted down on a mouth chart. This is done in duplicate so that one chart may be retained by the chapter as a record, the other sent to the child's home, together with a consent card. They are worded as follows:

.....N. Y., 19....

TO THE PARENTS OF.....

Your child.....needs dental attention. This is the time to have the small cavities filled to prevent future loss of teeth. If you have a regular dentist, will you please take your child to have these cavities filled while most of them are small. If you have no regular dentist and wish them taken care of in school, at a cost charge, by the Junior Red Cross Dentist, please sign the attached card and return to the teacher.

.....
Principal. Nurse. Teacher.

Junior Red Cross,
Nassau County, N. Y.

TO THE JR. RED CROSS DENTIST:

You are hereby authorized to do any dental work for my child....., that you may deem necessary, said work to be done at a cost charge of $..... I agree to pay this in advance or upon completion of the work.

.....
Parent or Guardian.

Dated....., 19....

Usually after the noon hour of the first day, some signed consent cards and money are brought back, and the dental work begins. The fourth piece of paper work is the "day sheet." This is made out wherever possible, by the school or district nurse, and is a complete record of time used, children's names, work done, and money received or receivable, and is mailed by the dentist each day to the executive secretary at the chapter house. At the end of the time at which a dentist stays at a school, the executive secretary makes out, from the day sheets and the cash she has received, a complete statement of all work done and financial transactions, and sends it to the school to be countersigned by the principal.

The aim is to make the work self-supporting, in order that any school may feel that it can engage a dentist, and cover the amount of his salary as well as the cost of materials, by the money brought in, the school system, of course, purchasing and owning the equipment. The charges are based on the time and the materials used, and are as low as possible—for instance a prophylaxis costs fifty cents to seventy-five cents, a filling fifty cents to two dollars, and an extraction twenty-five cents to one dollar. If in the judgment of the principal or school nurse it is impossible for the child to pay, the Red Cross pays the bill, but the aim has been to prevent pauperizing—and in some cases the money has come in ten cents at a time, covering the entire school year. The Junior Red Cross, doing this as a demonstration, and on a county basis, had the added expense of educational pamphlets, transportation, and an executive secretary—together with all the original equipment.

Last year's budget, and how it was expended, is as follows:

STATEMENT—SEPT 1, 1919, TO JUNE 30, 1920.

(Original equipment)		
Car	$ 750.00	
X-ray and equipment	456.55	
Chairs and instruments	1,201.00	
Total		$ 2,410.55
Expenses and salaries		
Expenses:		
Transportation	$ 1,063.91	
Laundry	82.50	
Telephone and express	18.36	

Publicity	392.08	
Janitor service	12.00	
Accident case	60.19	
Repairs on equipment	24.93	
X-ray at Nassau Hospital	1.00	
Office supplies	13.35	
Trip to Cleveland	100.00	
Christmas	10.00	
Total		1,778.82
Supplies:		
Dental	$ 1,062.18	
X-ray	45.00	
Total		1,107.18
Salaries:		
Six dentists	$ 9,453.58	
One secretary	1,070.00	
Total		10,523.58
Total expenses, supplies, and salaries		$13,409.58
Fees received for service		
Sept. 1, 1919, to June 30, 1920	$ 9,055.34	$ 9,055.34
Statement of financial condition		
Total disbursements:		
Original equipment	$ 2,410.55	
Expenses and salaries	13,409.58	
Total		15,820.13
Value of equipment on hand	$ 2,410.55	
Value of supplies on hand	434.40	
Amount taken in	9,055.34	
Total		11,900.29
Deficit		$ 3,919.84
Estimate for next year		
Supplies and expenses	$ 3,000.00	
Salary of one oculist for one year	4,000.00	
Salaries of five dentists for ten mos. (10% increase)	11,000.00	
Salary of one dentist for one year (10% increase)	2,750.00	
Salary of one secretary for one year	1,560.00	
Total		$22,310.00
Estimated dental fees (with 10% increase)		10,176.45
Deficit		$12,133.55
Optical fees not estimated		

A summary of the work done by the Junior Red Cross mobile dental unit from September, 1919, to June, 1920, follows:

No. of schools worked in	40
Pupils receiving dental attention	2,591
Number of sittings	4,825
First molars extracted	853
Other extractions	2,100
Treatments	423
Prophylaxis	2,058
Fillings	8,707
Root fillings	69
Approximate hours of service rendered	3,114
Charge for work done	$9,545.30

This year an oculist has been added to the staff, and it is believed that his work will be as effective as the dentist's.

In summing up last winter's experimental work and this winter's program several points are observable. The solid month of heavy snow, with schools sometimes closed and roads impassable, was a great handicap. It is hoped that we may escape that this year. It was necessary in beginning this work to relieve pain and suffering and clean up great numbers of badly abscessed mouths. This year the aim will be to care first, for the children in the lowest grades in order to begin a systematic program of preventive work. Last year much time was given to educational work for the parents as well as the children. Blotters were distributed throughout the county with pictures and admonitions concerning the care of the six-year molar. Lectures with lantern slides were given to young and old, and articles on oral hygiene sent to all the local papers. As soon as work was completed the child was given a Junior Red Cross button, with the slogan printed on it, "Clean Teeth in Nassau County." This year the emphasis will all be put on preventive work. All the school principals will be urged to have tooth-brush drills. The dentists will stand ready to instruct the teachers in the best methods, to lecture to parent-teachers asociations, and anywhere they can reach the mothers, to try to make the clean mouth a habit of every child in the county. The 1920-1921 clean teeth button will not this year be given on the completion of the dentists' part of the work, but rather at the end of the school year, as a reward for not only having been to the dentist but also having helped the work along by the use of the tooth brush.

The success of this work is due to the people who are supporting the Red Cross and who make such work possible, and to the help and advice of the University of the State of New York, Dr. W. A. Howe, state medical inspector, and Dr. Wm. A. Leak, oral hygiene inspector, having taken a great personal interest. In the county this health work could never have been done without the moral support and actual work of the school superintendents, principals, medical inspectors, and school nurses. The local dentists have been very cordial, and have found that the educational work of the Junior Red Cross has filled their waiting rooms.

PATIENTS SHOW THEIR APPRECIATION

That the patients of Glen Lake Sanatorium, Hopkins, Minn., appreciate what the treatment in this institution has meant to them, is shown by the following letter which was sent to Governor J. O. Preus, of Minnesota:

We are sending you, by the bearer of this letter, a fountain pen which we would appreciate if you would use in the signing of the bill, allowing the issuance of one million dollars' worth of bonds to be used to enlarge Glen Lake Sanatorium for the tuberculous, thus making it a law.

When the pen has served this purpose, will you kindly send it to Mr. Otto Bradley, executive secretary of the Hennepin County Tuberculosis Association, Minneapolis, Minn., as an evidence of our deep appreciation of his efforts in working for the passage of this bill.

We, patients, have been greatly interested in the progress of this Sanatorium Bond Bill. We are in a position to know how much sanatorium treatment means to those of us who are struggling to recover from tuberculosis. This, also, makes us doubly anxious regarding those who are ill and outside of sanatoriums, thus being deprived of needed care and instruction, because of Glen Lake's limited capacity.

We are thankful for our chance to recover and become once more active, useful citizens, and know the dire need of those who are deprived of this opportunity.

We wish Mr. Bradley and you to know of our gratitude, and are trying in this small way to express it.

PROGRAM PRESENTS NEW FEATURES

Although it is too early as yet to give any details of the program of the conference of the American Hospital Association, a few announcements may be made. One or more evenings during the week will be given over to speakers of national reputation, on subjects interesting to hospital workers. There will be one new section, on dietetics. Miss Lulu Graves, professor of home economics at Cornell University, and honorary president of the American Dietetic Association, will be chairman of this section, which will no doubt be very practical and instructive. Two reports which will be of especial interest are the report of the special committee making a study of state subsidy for hospitals, and that of the special committee making a study of flooring materials for hospital use.

The section on hospital construction has decided to make the section this year a round table, so that superintendents and others may have the opportunity of presenting their special problems for discussion. As the best authorities in the country on hospital construction will be present, this is an opportunity which no one can afford to miss.

DR. WILEY E. WOODBURY JOINS DR. S. S. GOLDWATER

Dr. S. S. Goldwater, director of Mount Sinai Hospital, New York City, and consulting hospital expert to the City of Cleveland, announces that Dr. Wiley E. Woodbury, director of the Fifth Avenue Hospital, will hereafter be associated with him in his consultation work.

THERE ARE ELEPHANTS AND ELEPHANTS

TO FIND a use for things which have been relegated to the useless class is surely the work of genius, or a genie—which is what the White Elephant Rummage Shop, at 27 East Ohio Street, Chicago, really is. It takes something which the Jones do not want, and spirits it into the home of the Smiths, who have been longing for that very thing for months, but felt they really couldn't afford to buy it.

The Rummage Shop is carried on for the benefit of the Children's Memorial Hospital, in Chicago, all of whose one hundred seventy-five beds are free, and open to any child in Cook County, except those having contagious diseases, needing free hospital care. The annual income from invested funds of the hospital supports the work for only eight weeks, the balance for operating expenses must be obtained by voluntary contributions and the proceeds of the shop. That this balance is not small may be gathered from the fact that, in 1919, the hospital cared for 2,391 children in the wards, there were 33,613 consultations and treatments in the free dispensary, and 7,507 visits made to homes by nurses in the social service department.

The Maurice Porter and Agnes Wilson Memorial Buildings of the Children's Memorial Hospital.

The Rummage Shop has been at its present location for two years. It had its beginning in "rummage sales" held from time to time. These sales proved so successful that it was decided to establish a regular shop, run on a business basis. An old house was rented and the work began. Two paid workers were engaged, a custodian, and one saleswoman for the clothes department. For the rest, volunteers were depended upon, and they were organized into teams responsible for different days in the week. They did very well, but as anyone who has had experience with volunteer workers will tell you with a half sorrowful, half cynical glance of the eye, when the novelty wore off, the enthusiasm wore off with it. So the shop has five paid workers, four saleswomen, and an executive secretary. Volunteers still sell to some extent; the committee likes to have them, as it creates a good atmosphere. They also solicit stock.

When the shop started, stock was collected by automobile, people loaning their cars for the purpose. After six months a Ford truck was purchased, and a year later a larger truck was found advisable. With a picture of an elephant on the side, and the name of the shop in large letters, the truck is as good a means of publicity as it is of conveyance. Articles are sometimes delivered from the shop, in the case of automobile bodies and ice boxes, for example. A member of the committee gravely said that they did not solicit ice boxes, but no doubt they come in just the same. To keep the truck busy, it collects newspapers; they have been quite valuable during the soaring paper prices. But more than that, the trip serves as a good reminder that the shop is in existence, and will take anything which is offered. If people know that papers are to be called for on a certain day, it will be just as easy to put old neckties and magazines on top of the newspaper pile as in the waste basket. The shop scorns nothing.

The executive work is done by an executive committee of ten members, of which Miss Martha Wilson is the president. The committee meets faithfully every week and has a report from the executive secretary, and a classified statement of expense. Sales are recorded by a cash register and the money is banked every afternoon. It may seem to the uninitiated an easy kind of a business

One of the miscellaneous rooms at the shop. Perhaps the most popular sale is the one of "odds and ends," such as thread, buttons, etc.

The Treasure Room at the Rummage Shop has in it many veritable "treasures."

Looking over jewelry at the Rummage Shop.

to run—stock pouring in—laid out on tables—sold with no effort—and money handed over to the hospital. But none of these things is true. It is a very difficult business to run, to keep alive and alert a thing which might quickly die out if interest were not stimulated; to persuade people to take the trouble to give away the things they don't want; to price the heterogeneous articles which come in; to say nothing of keeping the financial end straight.

The solicitation of stock is done mainly in person. The members of the committee keep their eyes open for friends who are moving, house cleaning, or closing their homes for the summer. The exodus from the south to the north side of the city has been a gold mine of opportunity. Teas are sometimes held and people are invited to "come and bring a white elephant with you." Cards are sent out from time to time reminding the recipients that the shop exists, and that its truck will call for anything they may want to donate. "We can sell anything," truthfully says the card. A slogan of the shop is, "You may save the life of a child by giving us things you don't want." That kind of advertising must surely make some people stop and think, then make a trip to attic or basement. Leaflets about the shop and the hospital are another means of advertising, and of course, the name on the truck. The only paid ad in the newspapers is in the charity page of *The Post*. Mention is often made of the shop in other papers, and that helps along the publicity cause.

Pricing the various articles is a real problem. It is done by a "marking committee" which is divided so that some members meet two or three times a week. The pricing is done on the basis of experience; an article is "worth what it will bring." The members of the committee have become so expert in their line that they could go into your house and tell you in fifteen minutes just about what the contents of your living room would sell for. Things are remarkably low in price, sometimes much less than half the original cost, even when the article, as in the case of jewelry, opera glasses, silver, etc., is almost as good as new. Prices are not changed if the article is not sold immediately, unless it is something which will deteriorate. In that case it is marked down enough so that it is sold quickly. Saleswomen are not at liberty to change the price, so there is no bargaining over the counter.

Articles which come in are sold "as is" except in the case of hats. A hat trimming department has been maintained with a good deal of success.

At first, time payment was allowed as a special favor, but now it is strictly a business proposition. A 10 per cent deposit will hold the article, with the balance to be paid in ten days. After a certain number of days, if nothing is heard from the purchaser, a form slip goes out reminding him that the balance is overdue, and that all claim to the purchase will be relinquished unless he is heard from before a stated date.

On the first floor of the shop are books, furniture, men's clothes, and "miscellaneous," especially miscellaneous. Buttons, bedspreads, couches, neckties, golf sticks, magazines—from the frivolities of *Life* to the somber hues of the *Atlantic Monthly*—musical instruments, tennis net, baby carriage, and college banners. You have heard the saying, "Everything but the kitchen stove,"—well, even the kitchen stove is here, a large one, in the front room. The next room is given over mainly to books and furniture. Slightly dilapidated chairs lean with a weary air against the wall, and "Selections from Ovid" and lurid looking detective tales hobnob with "Trade Unions," which was selling at five cents. The art room is upstairs, and holds a remarkable collection of pictures, vases, and some lovely pieces of jewelry. The women's clothing department they say is very popular, also the millinery. There are hats of all descriptions, long shelves of them. You would not dare lay down a slightly worn but faithful hat, for fear of turning around and finding a "sold" sign on it. You hurry out of the room if you value your hat.

The Rummage Shop is run on the good will of the community—it could not exist without it, but neither would the good will exist if the shop were not a fine institution doing a good work and in a very worthy cause.

BUILDING COMMITTEE VISITS LIBRARY

The building committee of the Riley Memorial Hospital for Children, to be constructed in Indianapolis, Ind., spent several hours on April 23, at the Hospital Library and Service Bureau, studying the plans of the children's hospitals in its files, and securing other information on hospitals of this type.

The committee is composed of Mr. F. C. Ball, Muncie, Ind.; Mr. William C. Bobbs, Bobbs, Merrill and Company, Indianapolis, Ind.; Judge Batman, Bloomington, Ind.; Mr. Robert F. Daggett, Mr. James W. Fesler, Dr. L. C. Huesman, Mr. Hugh McK. Landon, Dr. Arthur McCullough, Dr. L. F. Page, and Mr. F. C. Schortmeier, all of Indianapolis.

While in Chicago the committee visited several of the principal children's hospitals of the city.

UNIVERSITY OFFERS NUTRITION COURSE

The University of Chicago is offering in its home economics department, two six weeks' courses for the training of nutrition workers with children. Assistant Professor Lydia J. Roberts will be in charge of the course, and Dr. Walter H. Hoffmann, instructor of pediatrics at Rush Medical College, will be the medical examiner. The two sessions will begin on June 21 and July 28, respectively.

OCCUPATIONAL THERAPISTS MEET

The Illinois Society of Occupational Therapists met in the room of the Hospital Library and Service Bureau, 22 East Ontario St., Chicago, on April 29. The society will hold its business meetings in the Library on the last Friday of every alternate month.

A POST WAR VIEW OF REHABILITATION OF DISABLED SOLDIERS IN GREAT BRITAIN

By DOUGLAS C. McMURTRIE, Secretary, Institute for Crippled and Disabled Men, New York City.

SINCE their inception, I had been familiar at long range with the provisions for rehabilitation of disabled British soldiers. Recently, however, during the course of a visit to England, I had the opportunity of conferring personally with a number of the national authorities responsible for the work, and of visiting some of the centers at which it is carried on.

The period of war electrification is over. The disabled soldier is no longer a seven-day wonder, and the work in his behalf has settled down to a steady routine grind. With the passing of the acute public interest I was surprised to note, however, that the character of the work had not suffered to any appreciable degree. The officials are still attacking their problems with vigor, constantly considering new methods of possible value, and changing tactics to meet new conditions.

If asked what feature of the British work was most impressive I should answer without hesitation, the humanity of the local war pensions committees. The second most noteworthy feature is the promptness with which their work is handled.

In London, for example, there is a central committee, and twenty or more sub-committees, each responsible for a district of limited size. The sub-committee is made up of citizens of the district serving as volunteers, and representative of labor, employers, and general public. The committee consults on individual cases coming before the office. The active work is performed by a paid staff directed by an executive secretary. The calibre of the members of these staffs is exceptionally fine.

The disabled man, discharged from the army, returns home, and presents himself at the nearest local pensions office. Unless his case presents some unusual difficulty, due to lack of records or serious conflict in medical testimony, he is examined, and a recommendation for award of pension is forwarded to the Pensions Ministry. If the soldier had to wait until his papers were acted upon at national headquarters, much hardship would ensue. But the signal advantage of the British system is that he does not have to wait. The local office is authorized to use its best judgment and start paying the man a provisional pension in cash beginning that week. It is then a matter of little concern as to when his papers return, though as a matter of fact they come through rather promptly.

Electrical workshop at Roehampton.

There is next observed another most intelligent arrangement. As soon as the pension is definitely fixed, the local office issues to the soldier a document known as a "ring paper," so designated because the back is covered with circles about an inch in diameter. The face of the paper certifies that the soldier is entitled to draw on a given day each week, at the postoffice nearest his home, a pension payment of stated amount. So each week, at the same interval and in the same manner as he would receive pay, he is handed his pension in cash by the postmaster, who places a dated postmark in one of the circles on the reverse of the ring paper. When all the circles are filled, the ex-soldier returns to the local committee for a new one. This requirement also serves to keep him in touch with the committee.

If an ex-soldier needs medical treatment, and hundreds of thousands of them require it intermittently, the arrangements are made by the local committee. If the treatment is extensive enough to interfere with regular employment he is put at once on a one hundred per cent disability pension, which is paid weekly in cash at the local office, beginning at once. His ring paper is taken up by the office and forwarded to pension headquarters. When the period of treatment is over and the man returns to his regular pension, the local office requests headquarters to return his ring paper directly to him and make it effective again from a stated date. There may be a delay in receiving it, but this makes no difference to the ex-soldier, because the local office will advance him weekly the amount of his pension, the advances to be returned by him when his ring paper arrives. The men know these advances can be deducted from future pensions, if not repaid, so they invariably reimburse the local office.

The point of giving this rather extended account of the pensions mechanism is to show the realization by the British authorities that essential routine and red tape inevitably occasion delays, but also show that insurance has been provided against the possibility of such delays causing hardship to the men. Think of the simplicity of the system: getting money weekly at the postoffice. Compare it with the plan of mailing compensation checks from one central office a thousand miles away.

One notices also that the interviewers in the local office take the initiative in helping a man to prove his case, and obtain a pension that is just. They do not assume the attitude of "prove your case if you can; we will pay you nothing until driven to it," which is unfortunately so common among pension administrations. If from their intimate personal knowledge of a man's case they realize an award is unfair, they zealously endeavor to get through for him a special grant, or they advise him to appeal, and help him to prepare his appeal papers. In other words, the workers in the local office humanize the official system, and do much toward promoting satisfaction and good

feeling among the ex-service men. The United States would do well, with reference to this feature, to take a leaf from the book of British experience.

It is of interest to note that all of the pension work in London, with a staff of over seven hundred, and an annual disbursement of funds in excess of fifty million dollars, is directed most capably by a woman, Mrs. Ethel Wood. As large a percentage of the staff as possible is made up of disabled ex-service men.

One of the most commendable provisions of the British pension law is the "alternative pension." If a disabled man can show that his normal pension plus his present earning capacity falls short of his pre-war earnings increased by 60 per cent, he can have the difference, up to a total of five pounds weekly, made up by an alternative pension. The 60 per cent added to the average rate of earning before the war is to allow in limited degree for the increase in the cost of living. This provision helps to minimize hardship in the cases of men with a standard of living higher than contemplated in fixing the general pension scale. The 60 per cent increment was supposed to allow for increase of living costs, but the most recent official figures show this increase to be nearer 130 per cent.

A concrete case would work out as follows: A man had average weekly earnings before the war of two pounds five shillings. Adding the 60 per cent to this gives three pounds twelve shillings. If the man can now earn but one pound twelve shillings, his alternative pension will be two pounds a week, to make up the difference.

A widow may likewise claim alternative pension up to two-thirds of her husband's pre-war earnings plus 60 per cent, this total not to exceed five pounds. This makes the limit of alternative pension to a widow three pounds six shillings eight pence, and anything up to this figure, as warranted by the record, may be paid entirely irrespective of her present earnings or income.

One class of men for whom a special procedure is required are known as Article IX cases. After the armistice the rumor was current that discharges would be obtained more quickly if no disability claim were made. It was only a rumor, but early return home was the only object of interest at the time, and many certified in writing that they were sound and well and suffered from no disability incurred in service. Though their medical record at discharge, therefore, shows no disability, this does not prejudice their claim to pension. They first produce reports on their health prior to and subsequent to the war. Opinion is then passed upon the case by the medical referee of the local pensions office, and if this is to the effect that he is entitled to pension, the medical officer from the central pensions office is called in to examine the ex-soldier. If this official concurs in the earlier opinion, the case goes to a special board for action, but, from the time his signature is put on the papers, the local office may begin paying provisional pension, giving the board as much time as it wishes for deliberation, without hardship to the disabled men.

Soldier with double amputation learning to be a telephone operator.

Another provision of the law is for so-called "civil liability" claims. When a man can show that he had a business which went to pieces because of his absence on war service, or that because of his disability he is going into a line of work in which he will need some capital or equipment to start satisfactorily, he may be given a grant of any sum up to $600. Many men are thus set up in business, but the results are not very successful, because a majority of the men lose the sum through unwisdom or inexperience, and in other cases the capital proves insufficient to swing their venture.

The problem Great Britain has had to meet in returning her disabled soldiers and sailors to civilian life has been staggering in its proportions. At the present time over one million men are drawing pensions of greater or lesser percentage, for disabilities incurred in the recent war.

Learning to be a laboratory attendant.

The responsibility for the interests of disabled ex-service men formerly rested entirely with the Ministry of Pensions, but recently the functions of training and placement have been transferred to the Ministry of Labour. There still remains with the Pensions Ministry, however, responsibility for award and payment of pensions and special grants, for medical treatment, and for provision for the varied incidental needs of the wounded men.

Having taken over from the War Office responsibility for all treatment of disabled soldiers, and as many of the men as are still in the invalid stage, it is necessary for the Pensions Ministry to maintain a chain of hospitals. Most of these hospitals were formerly military institutions. One of the most famous is now known as the Pensions Orthopedic Hospital, at Shepherd's Bush, in London. It accommodates seven hundred men, and provides all types of treatment. There are ample operative facilities, and provision for plaster work, hydrotherapy, electrotherapy, massage, medical gymnastics, and so forth.

Then there is a fine set of curative workshops which provide first, under occupational stimulus, exercise for stiffened and injured muscles, and second, helps to reawaken ambition in men who have become depressed by a stay of years under hospital treatment. The shops also accomplish a good deal vocationally in starting a man in a line which interests him, although the director complains that he cannot do much in this direction because the average stay is so short, not longer than four or five weeks. When the state of a man's health permits fairly regular attendance at the shops he is approaching the date of hospital discharge. The average attendance is about one hundred.

There is a remarkably wide range of occupations offered by the workshops. For example, the following classes are in progress: toy making, carpentry, upholstery, painting, shoe repairing, oxyacetylene welding, printing, lettering and sign writing, photography, hand and machine tool work, coach painting, and motor mechanics. Even if he leaves fairly soon, a man in the shoe repairing class will learn enough to care for the cobbling of his own family's shoes; the man in the upholstery class will not have to send his own furniture out for repair.

In such a hospital the chief emphasis is on treatment, and the workshops exist principally for curative ends. There is another type of man, however, who needs treat-

ment in a hospital, but who is strong enough to take training regularly at the same time. Treatment is a function of the Pensions Ministry but training is now a function of the Ministry of Labour. It has been arranged, therefore, that the pensions authorities should establish, to meet the need of this class of ex-service men, a chain of institutions known as "concurrent treatment and training centers." The one best known is at Epsom, just outside of London, and is designated as "Queen Mary's Convalescent Center." It has accommodation for one thousand men. Other similar institutions are located at Blackpool, capacity 1,000; at Birmingham, capacity 400; at Saltash (Plymouth), capacity 400; and a new one at Barry Docks, near Cardiff, Wales, capacity 300, has just been opened.

Practically all were formerly military camps; Epsom was a Canadian convalescent center.

At Epsom instruction is given in the following subjects: shoe making, brush making, cabinet making and joinery, vehicle building, painting, upholstery, electrical wiring, machine tool work, acetylene welding, chemical laboratory technique, horticulture, pig and poultry raising, drafting, and commercial subjects. The stay here is long enough to permit real vocational accomplishment in the shops. Many of the men come up to the point where they should be placed in employment or passed on to the training centers of the Ministry of Labour, but at this point, real difficulty arises. This difficulty, which concerns the trade unions and the saturation of the trades from the point of view of employment opportunity, is encountered in all training effort in England today. This difficulty will be discussed in detail later in the course of the present article.

Many thousands of disabled men have already been returned to civilian life, but as the work of the Ministry of Labour approaches its close the more difficult cases remain to be dealt with, and placement becomes infinitely harder with the progressively acute diminution of manufacturing activity, due to the restriction of buying occasioned by inordinately high price levels.

The Ministry is using two principal means of providing training for disabled soldiers. The first method is to send the men to existing trade schools which organize special classes exclusively for wounded ex-service men. This is very satisfactory for as many men as can be accommodated, but the facilities, numerically, fall far short of the demand. In London, for example, a large number of men have been trained at the Cordwainers' College, in Bethnal Green Road. Here there are classes in fine boot and shoe making, and in light leather work of several types. The courses average about twelve months in length.

Then there is a small but useful training shop organized by the Guild of Broiderers, in St. James Street. The shop is located on the second floor, but there is an elevator for the men to ride up in. Instruction is given in embroidery, but not of the conventional kind. The work is confined almost entirely to the embroidering of military and naval insignia for uniforms, and there appears to be steady employment available in this field. One of the conditions of establishment was that the shop, at the end of three years, is to belong to the men, in case they want to carry it on. The advantage of this occupation is that it can be followed by men disabled to almost any extent, provided they still have the use of their hands.

The number of men that can be taken into existing training institutions seems insignificant, however, compared with the demand. Some time ago there were 25,000 men on the list awaiting training; there are now 18,000 on register. The reason for this waiting list will soon be discussed, but the numbers will give some idea of the magnitude of the problem.

The ministry decided it would have to make plans for training on a large scale. It has established at various points throughout the United Kingdom, what it terms "instructional factories" for disabled men. These are shops operated under conditions very like those encountered in private manufacturing establishments. These training centers now have accommodation at any one time for 25,000 men, and this will soon be increased to 30,000.

The trades taught might be designated as the "standard trades," particularly those of the building industry. Machine tool work, plumbing, carpentry, bricklaying, plastering, and painting are among those registering the largest attendance. One reason for the selection is that these are trades in which large numbers of men are employed, and they are therefore easily more susceptible of absorbing the disabled men. Another reason is that building is far behind in Great Britain and it is thought that employment conditions in these lines will be good for several years to come.

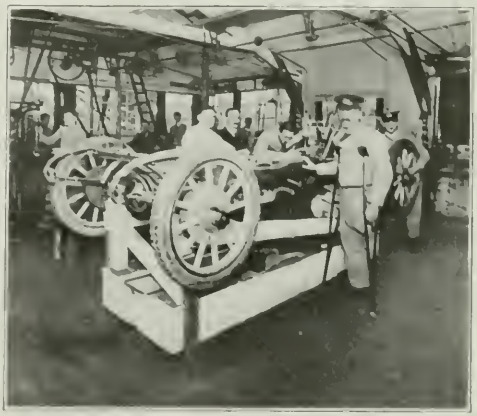
In these "instructional factories" the men not only learn the trade theoretically, but stay long enough to be speedy and adept producers.

When a man is placed in training he receives a training allowance of two pounds per week, with extra grants of ten shillings for a wife, eight shillings for his first child, seven shillings for his second child, and six shillings for each of all additional children. If he must leave his home to go into training he receives twenty-one shillings a week out of the two pounds; the balance of nineteen shillings and all the other allowances are paid to his wife.

For men living away from home, the Ministry of Labour maintains hotels, and makes up the deficit between the seven shillings six pence paid by the soldier and the actual cost of operation.

So much for the mechanism of training; we may now proceed to consider the vital problem in the British work.

Industry in Great Britain is very highly organized by the trade unions, to a much greater extent than in the United States, and almost every occupation is unionized. It was realized from the first that men trained for a trade would have no chance of getting employment unless the plan were approved by the union in that trade. It was also appreciated that, by the training of large numbers of men in certain lines, those trades might be overloaded from the point of view of employment opportunity.



Motor mechanism and engineering workshop at Roehampton.

The principle was therefore laid down that, for every trade in which it was proposed to undertake training, there should be organized national and local joint technical advisory committees, made up of an equal number of representatives of the employers and of the trade unions. The national committee would advise as to whether training for that trade were practicable, how long the courses should be, and, in general, how many disabled men could be absorbed. The local committees would approve or disapprove the fitness of individual candidates and control the number of men to be trained within the area of their jurisdiction.

This system has the advantage that, when a man enters training for a trade with the joint consent of employers and the union, he is practically assured of employment at the termination of his course. The disadvantage, very naturally, is that many men who could properly be trained for given trades are kept out of them or delayed to an undue extent by the action of the unions. The various unions have behaved very differently in their attitude toward the training of disabled men. A very few have taken the generous and patriotic attitude that the men who fought to protect the country and keep it fit to work in at all, should be taken care of, even at some sacrifice, and given every possible opportunity. The unions in the shoe and leather trades, for example, have taken this attitude and have been exceedingly helpful. Others have been just fair, and have agreed to absorb the disabled men who were formerly in their trade, together with a few additional. Still others have refused to have any disabled men, not formerly identified with their trade, trained for their occupation.

The explanation of this attitude, far from evincing a desire to be unjust to the disabled soldier, may be found rather to result from this chain of reasoning. It has taken the unions years to build up the present safeguards to their interests. One such protection is the limitation of numbers admitted to the trade. To allow the admission of a considerable number at the present time under special conditions would heighten the risk of unemployment in the future. Even if employment now were ample, and there is considerable unemployment, which bids fair to increase, the memory of desperate unemployment but a few years ago is still fresh. Such unemployment may come again. This would make for suffering on the part of the disabled men as well as of others now in the trade.

When the cause of delay in placing men in training is examined into, it will be found due, not to official obstruction or procrastination, but to the inability to get consent to their training from the joint technical advisory committees. One view of this is that it may be better to have some delay now than to train thousands of men and then be unable to get employment for them at the conclusion of their courses. But the situation is unfortunate.

In the blacksmith's shop at the Orthopedic Hospital at Shepherd's Bush.

Inasmuch as training is practically in trade union control, the effort is being made to find some subjects of instruction which do not bring about conflict with union interests. For example, it has been found that the so-called "handy man" about the farm is practically becoming extinct. So one of the instructional factories is training "handy men," preparing them to fix a plow, run a gas engine, repair harness, and so forth.

There is some opinion in England to the effect that the government acted unwisely in the first instance in putting itself completely within the power of labor unions. Such opinion holds that at the time when war interest was still high, the government should in effect have said to each union: "There are 600,000 disabled men to be refitted into employment. The quota for your trade is 1,250, and we will, therefore, train this number. Let us know now whether you will cooperate or oppose." The belief is that the force of public opinion would have precluded the possibility of any other course than cooperation. Then, again, it would have prevented the assumption of extra heavy burdens by willing unions while others passed the responsibility by. But this is only retrospective speculation.

The one group of unions whose attitude is of most importance at the present time is that of the building trades, because there is great demand for construction of homes, and it seems sure that there will be more than enough employment for many years to come. The government is asking, therefore, that 50,000 ex-service men, the fit as well as the disabled, be admitted to these trades. The unions, too, anticipate good employment for a considerable period, but they are asking some concrete guarantees to this effect, possibly in the form of special unemployment benefits, and arrangements for priority of present members as to employment if slack times ensue. The government is disposed to provide such guarantees, and negotiations are now in progress, with expectation of mutual agreement.

Placement of men with employers, with arrangement for their training, has not, on the whole, proved successful. It has seemed impracticable for a man to obtain really effective instruction under ordinary shop conditions, so this method has been almost abandoned.

Provision for the training and employment of disabled men is entrusted largely to the care of Sir Montague Barlow, parliamentary secretary of the Ministry of Pensions. I had two lengthy conferences with Sir Montague to discuss the present problems of the Ministry. In his opinion, provision was still to be made for a great class of men whose difficulties were not solved by any now existing facilities, namely, the men so handicapped as to be unemployable in the ordinary channels of industry. Within this classification would fall the epileptics, the mental cases, the chronic cases requiring treatment at frequent intervals, the debility cases incapable of a full day's work, and so forth. He believed there were 100,000 such men. The only possibility seemed the establishment of production shops under government auspices, providing employment under special conditions, paying the men a living wage and selling the products, so far as possible, in non-competitive fields, as, for example, to other government departments. This, it appears, will be the next extension of the British work.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,
132 E. 45th Street, New York City

THE FACULTY OF A SCHOOL OF NURSING

BY CLARIBEL A. WHEELER, R.N., PRINCIPAL, MOUNT SINAI HOSPITAL SCHOOL OF NURSING, CLEVELAND, OHIO.

MANY of us who live in the present period are prone to think of ourselves as being more advanced than the generations which have gone before us. For example: we consider ourselves great sanitarians and hygienists, but when we study the Vedas of the ancient Hindus who lived a thousand years B. C. we find that they bathed frequently, took excellent care of their teeth, and would not wear garments worn by others; we hear social workers speak of social service as a recent innovation, but when we read the life of Vincent de Paul, who lived in Paris two hundred years ago, we realize that he had a social vision of wonderful scope, and conducted organized forms of social service work. So also we think of our present forms of organization and administration as being unique and original. Such is not the case, however; we have only to study the principles of organization established by the nursing sisters of the middle ages in the large hospitals of that period, to appreciate the fact that we have inherited much from them.

Our modern system of administration of schools of nursing originated, it is true, in the Nightingale School, which was established in connection with St. Thomas hospital in London, in 1860. It was really an outgrowth of the old system of hospital nursing with several new and outstanding features, notably the change from the apprentice system to the educational system, which called for a staff qualified to teach as well as to supervise.

The Nightingale system, or the Bellevue system, as it has been called in this country, placed in the hands of the matron or superintendent, who must be a nurse, the control of the entire nursing staff, the selection, teaching, and discipline of the students. She was responsible to the superintendent of the hospital and the medical staff for the carrying out of regulations and orders for the care of the patients. She was appointed by the committee of the school of nursing and was responsible to them for the school. Although this system still prevails in a few of our schools, in the majority of them the principal or superintendent of nurses is appointed directly by the superintendent of the hospital, or by the board of trustees upon recommendation of the superintendent. The school, therefore, is considered a department of the hospital. As to whether this is the best method of administration of a school of nursing there is much controversy, but it is not my purpose to discuss it in this paper.

The number on the faculty of a school of nursing must necessarily depend upon the size of the hospital and the number of students enrolled. To set up any form of organization some standard of size must be taken as a basis upon which to work. Consequently, the duties as outlined in this article pertain to a school in connection with a hospital of at least one hundred beds. We must also keep in mind the fact that a dual organization is being described; a department responsible for the care of the sick in the hospital, and a school of nursing. The two are so closely interwoven that it is impossible to separate them.

The Principal

It would seem better always to use the term principal for the head of the school rather than that of superintendent of nurses, for she is not then confused with the superintendent of the hospital. She may be called principal of the school and directress of nurses, as in most institutions she serves in this dual capacity. The principal is responsible directly to the superintendent and in some cases to the committee of the school. Usually the committee serves in an advisory capacity and only matters of general policy are brought before it. It also gives assistance in making the social life of the students more attractive, in paying special attention to the students' living quarters and their recreation, and in helping to provide better teaching facilities.

The kind of relationship which exists between the principal and the superintendent is of vital importance to the school as well as to the hospital. In fact, upon this die is cast the fate of the school. If the superintendent is a man or woman of limited vision with a secondary interest in the school, the principal has a difficult path to tread and many discouraging moments are ahead of her. If, on the other hand, the superintendent is a hearty sympathizer with what she is trying to accomplish she has no better ally or co-worker, and she is in a position to carry out in a larger measure her plans for the development of the school. She must remember, however, that as the superintendent is responsible to the board of trustees for all the departments of the hospital, she should keep him informed of all matters of importance concerning the schools and the nursing service. She should consult with him in making any changes which effect the policies of either one. It seems to me that a principal working out of harmony with the superintendent, or with one upon whose support she could not depend, would find herself in an impossible position. On the other hand, a principal who cannot be a loyal supporter of the superintendent or the board of trustees has no business in the institution.

In a few hospitals where there is no assistant to the superintendent the principal is called upon to fill his place in his absence from the hospital.

Head Must Keep in Touch with Departments

The head of a school connected with a hospital has one of the most difficult positions in the hospital organization, because there are so many other departments closely allied with hers, departments with which she must keep in intimate contact and with which she must have the closest cooperation. There is the medical staff, the dietary, housekeeping, and engineering departments, the laundry, pharmacy, etc. Whereas formerly she had under her control several of these departments, they have now been taken out of her hands and are directly under the superintendent. She is absolutely dependent upon their cooperation for the efficient work of her own department. She therefore needs to be able to get the point of view of the other departments, as well as to make her point of view clear to them.

As stated before, the function of the principal is twofold. First, that of the administrator of a department, responsible for the nursing care of the patients; second, she is responsible for the selection and supervision of the personnel of that department. It seems that the principal should have the prerogative of selecting her staff of assistants, instructors, supervisors, and head nurses, with the privilege of dismissing them. She is also responsible for the selection, education, and conduct of the students in the school. She, with the approval of the superintendent and the school committee, must decide (in accordance with the state laws) upon the curriculum to be established. She must secure teachers and lecturers in all subjects to be taught. She must provide for the proper rotation of services for her students, to see that they shall have experience in each department and that they do not remain longer than their allotted time in any one service. She must pass upon the nursing technique established for the school; must be responsible for the home life of the student nurses, for their living quarters, recreation and general health. It is true that the details of these things are necessarily delegated to her assistants. To be efficient she can not afford to burden herself with details which can be carried out as well by others. It is necessary for her to make frequent rounds throughout the hospital for the purpose of inspection of the wards and to watch the student nurses at work, to visit the patients and inquire for their comfort and care, to solicit criticisms if there are such to be made. The occasional making of rounds with the different services is desirable as it makes her familiar with the problems concerning the work of the staff on the wards as well as nursing problems arising therefrom. She should attend lectures and classes given to students so that she may know the character of teaching being given by the instructors.

Frequent Conferences Desirable

It seems essential that the head of a school of nursing should keep in close touch with her students. This can be done in no better way than by having some class work with each group. To the first year students she can teach the history of nursing and ethics; to the junior class, ethics; and with the senior class she may hold conferences on professional problems, or meet with them for the discussion of current events.

It is highly desirable for the principal to have frequent conferences with her assistants, instructors, and head nurses. Such conferences should be held at stated intervals. The head nurses' conference should be held at least once a week, and should be attended by the principal and her assistants although it may be presided over by one of the head nurses. Such conferences are of inestimable value to all concerned.

Conferences with the superintendent and members of the medical staff in charge of the services are very helpful. In such a conference many difficulties and misunderstandings may be adjusted and suggestions made for the betterment of the service.

The woman who holds the position of principal of a school of nursing must be a person of broad vision and keen insight. This quality can not be developed by one who is unable to delegate work to others or who feels that it is necessary for her to see, personally, everything that is being done in the hospital and who never finds time for outside interests. Great demands upon her time are made by people seeking interviews, by those desiring positions, by those coming for counsel and advice, by members of her own staff and students. For all of these she must have time. She is constantly being called on for outside work connected with her profession. This outside contact not only gives a broadening influence to the individual, it brings that same influence to the student body, and reacts in a more widespread benefit to the community at large. It should be considered as much a part of her work as that done inside the hospital walls. For the same reasons she must keep in close touch with current events and must meet people outside her own profession. "All work and no play makes Jack a dull boy," consequently interspersed here and there must be frequent diversions, reading, music, theatre, and the things that give richness and color to life, for unless she continues to take in she will cease to give out to others. The same thing is just as necessary for her staff of assistants and instructors, and it is her duty to see that they have time for recreation and diversion.

Instructor in Sciences

In some of our schools the assistants to the principal combine both teaching and administrative work. While this method may have some advantages it seems to be more practicable to have their duties more clearly defined. One of the latest additions to the school staff is the instructor in sciences, a woman who has been especially prepared for teaching. The plan of having all subjects taught by the principal and her assistants has not proved satisfactory, and a person who has no other demands upon her than teaching must prove to be of greater benefit to the students and to the school. The instructor plans the class schedule, making out the main schedule the first of the year, including the whole year's work, giving each subject a stated number of hours and giving the dates for the beginning and ending of the courses. From this schedule she makes out her sub-schedules or weekly schedules, which have to be planned with due consideration for the ward work, the night nurses, etc. She sees that this schedule is posted, not only on the main bulletin board, but in every ward, for the use of the head nurses; she must also see that they are kept up to date. The head nurse thus knows how to arrange the "time off duty" for the pupils. The instructor sees that classes are run on scheduled hours, that they do not overlap and detain the students when they should be on the floor relieving some other students for their classes. She sees that lecturers keep their appointments and that each lecturer and instructor has a full outline of the subject material to be taught.

In a hospital where a librarian is not employed it falls to the instructor to take charge of the reference library,

to see that it is replenished and that new and reliable material is available on all subjects. She gives out the reference books and checks them in on their return.

The instructor usually keeps a record of class work. In this way she can see that each student has completed successfully the subjects required. She makes up the general averages at the end of the courses.

The principal duty of the instructor is to teach those subjects which have to do with the theory of nursing other than the active practical procedures. She usually carries anatomy and physiology, materia medica, chemistry, and often bacteriology. She attends lectures and has classes in nursing and other subjects. An instructor can carry too many subjects. Not more than from fifteen to eighteen hours per week of actual class work should be carried, otherwise she will not have sufficient time for proper preparation. Preparation for class work should be included in her working hours and not done during hours off duty.

Instructor in Nursing Procedures

In schools connected with hospitals of one hundred beds or more it takes the entire time of one instructor to teach the nursing procedures and the theory attending them. This person occupies a most important position, for upon her depends the kind of nursing technique which is to distinguish the students of the school. The demonstration room is used for this teaching, but it is necessary for the instructor to follow up the students' work on the wards to see that they are correctly carrying out the exact technique which has been taught in the class room. It is necessary that she do this, not only through the preliminary course, but through the entire first year of the students' course. She must work in close cooperation with the head nurses on the wards, keeping them informed of the technique being taught and any changes being made. She plans with the head nurses the duties to which the young nurses are to be assigned.

Where there are more than twenty-five students in a class the instructor may need some one to assist her in this work. Such a position offers a great opportunity for a young graduate who wishes to do teaching. With smaller classes, especially where the principal has only one assistant for administrative work, this instructor may relieve the assistant for time off duty. She can also have work assigned in the school office. She may be called upon to teach drugs and solutions or some other subject for which she is especially prepared. She also keeps the records of practical procedures, carefully checking them up to see that each student has not only seen the demonstration, but has demonstrated to her in return.

Assistants

The principal may have one or two assistants, according to the size of the school, whose duties are almost entirely administrative in character. The duties of such assistants vary in different hospitals. In some the assistants take over the supervision of certain departments, acting in the capacity of supervisors. In the majority of cases, however, the supervisors are distinct from the assistants. The assistant takes the place of the principal during her absence, taking charge of her interviews, and appointments. She makes daily rounds in the wards, visits the patients, inspects, observes the work of the students and works in close cooperation with the head nurses. Most schools keep a record of the inspections which are made in the various departments of the hospital. To her is assigned much of the detail work, such as the keeping of daily records, the calling of special nurses, the planning of the assignment of students to different departments, which is in itself no small task. She looks after sick nurses, inspects the students' uniforms and rooms, and attends to many other details too numerous to mention. The assistant may also carry one or two classes if necessary.

If more than one assistant is employed, the duties may be divided equally between them.

Night Assistant

The night assistant, or night supervisor as she is often called, holds a very important position and should be classed as an assistant to the head of the school. Her duties are administrative to a great extent, yet she has a definite teaching function as well. At night she takes the place of the head nurse, principal, and superintendent of the hospital, as all questions arising, with the exception of those directly concerning the medical service, have to be settled by her. In many instances she has under her supervision young nurses serving their first term of night duty, who need her counsel and advice. To such students she must give much time and thought. Frequent rounds are necessary to keep in close touch with all that is transpiring on the divisions. With her rests the responsibility of calling members of the house staff for serious cases and emergencies. In the smaller hospitals she directs the nurses' work in the emergency department, and sometimes has the supervision of the obstetrical service, which, unless very small, should have a special supervisor for night work. She is responsible for the conduct of the entire institution at night, to see that there is no unnecessary noise, no wasteful burning of electric lights. She must see that visitors leave the hospital at the proper hour, must account for her staff of nurses, ward helpers, orderlies, and even see that the night cook is on duty. If the cook fails to appear she may have to prepare the night supper, or provide someone from her own staff to do it. She may be called upon to relieve the night telephone operator for his midnight meal. It will be seen that she must be a very versatile person who can turn her hand to any task when the emergency arises.

Supervisors and Head Nurses

Supervisors and head nurses should be considered members of the faculty of a school of nursing. They should be carefully selected with this thought in mind. No matter how excellent the staff of assistants and instructors may be, if the head nurses are disinterested and incapable they can tear down more in a few weeks than can be built up in many months. In choosing nurses for this work they should, first, have had special experience in the branch for which they are engaged; second, they should possess teaching ability. A head nurse should be made to feel that her position is an important one, for it carries with it great responsibilities. She is in a great measure the person who is to bring either credit or discredit to the hospital and to the school. She must see that her patients are given good nursing care, that orders are carried out to the letter, that suitable diets are provided for her patients, that the social service department is notified of all cases needing help from that source. She must see that her ward is in perfect condition, that sufficient supplies are provided, that the equipment is kept up by a monthly inventory. She must render such reports as are required by her organization. She must necessarily spend considerable time in making rounds with members of the medical staff, must be able to give relatives and friends of patients information and a sympathetic understanding.

The duty of the head nurse to the students under her

direction is one which cannot be lightly estimated. She must cooperate with the other officers of the school in seeing that the students get as much as possible out of their training. She must see that the technique which has been taught in the class room is carried out on the ward, that there is proper correlation between the class room and the ward work. She should call to the attention of the students any symptoms or results of treatment which are of teaching value. She should help the students to work systematically, to plan work, and to be constantly on the alert for anything which they can learn. She must inspect the pupils' charts and give them assistance in making their case records.

The writer has, for several years, tried the experiment of giving the head nurses the teaching of nursing in the branch which they represent; for example: the head nurse of the children's ward attends the lectures given by the pediatrist and follows them in classes and quizzes. The supervisor of the obstetrical ward does the same thing, so do the head nurses of the medical wards. This gives the head nurse an added interest in her work and she is better able to assist the student with a correlation of her work on the division.

Organization in Smaller Hospitals

In smaller hospitals it is true that the nurse superintendent is often principal and sometimes instructor, as well as housekeeper and chief engineer. To expect so much of one woman even in a small hospital is to expect the superhuman. In the majority of institutions where the superintendent is also head of the school all the details of school administration are turned over to an assistant. This assistant may do some teaching, but a full time instructor should be employed to do the bulk of the teaching. Certainly no hospital is justified in conducting a school unless such an instructor can be furnished to teach the students. With such organizations the assistant must relieve the superintendent, and her duties are not clearly defined. If there are two assistants one should be assigned to administrative duties pertaining to the hospital, and the other to duties pertaining to the nursing department and to the school of nursing.

We must take into consideration the fact that no plan of organization was ever set up that would fit exactly several institutions, so it must be remembered that each school must work out the details of organization which will best serve its purpose, that is, the efficient care of the sick and the education of the students in the school.

TEACHERS COLLEGE TO HOLD INSTITUTE

An institute for state inspectors of nursing schools and nurse examiners is to be held at Teachers College, Columbia University, New York City, July 25 to 30, inclusive. This short series of lectures and conferences has been arranged by the department of nursing and health, for the women who are largely responsible for the supervision of nursing schools throughout the different states, and for the examination of candidates for registration. All nurses who are engaged in such work are invited to attend the institute without fee, and to take part in the discussions and conferences. Those who expect to attend are asked to register as soon as possible, by sending their names to the department of nursing and health.

There will be a series of daily lectures by educational specialists in other fields than nursing, and another series by nurses with wide experience in training school inspection. There will also be an informal conference every morning where all kinds of practical problems can be discussed in detail.

Those who attend the institute are invited to visit any other classes or lectures in the college during the other hours of the day.

The following is a tentative outline of the subjects which will be presented at the institute and the lecturers who will take part:

General Lectures—4:30 p. m.

July 25—By what machinery does the state organize and supervise its system of general education?—Professor Hillegas.

July 26—What are the essentials of a good system of vocational education?—Professor Snedden.

July 27—How can high school and other educational credentials be evaluated?—Professor Upton.

July 28—What is an educational survey for, and how are surveys made?—Professor Briggs.

July 29—What do we mean by supervision, and what is its educational value?—Professor Grace Day.

Lectures on Training School Inspection—11:30 a. m.

July 25—What is our goal in nursing education, and how may we hope to reach it? The part played by legislation, state inspection, and examination in the general scheme of nursing education.—Professor Annie W. Goodrich.

July 26—What is a good training school for nurses? Minimum essentials for the theoretical and practical training of nurses.—Professor Annie W. Goodrich.

July 27—What can be done to strengthen weak schools through cooperation and affiliation with other institutions?—Professor Annie W. Goodrich.

July 28—How to inspect a nursing school.—Miss Elizabeth Burgess.

July 29—Office organization and procedure for state inspectors—reports and records.—Miss Elizabeth Burgess.

July 30—State examinations, what are they for? What do they show? How can they be used to assist nursing schools?—Miss Elizabeth Burgess.

The following regular courses which are being given during the summer session will probably be of special interest to those attending the institute:

Education s173—Administration in Nursing Schools—9:30 a. m.—Professor Goodrich.

Education s171—The Curriculum in Nursing Schools—10:30 a. m.—Professor Stewart.

Education s170—Teaching of Nursing Principles and Methods—1:30 p. m.—Professor Stewart.

Those who wish to secure rooms in the vicinity of the college, should write to Mrs. Bliss, Room 305, Philosophy Hall, Columbia University.

WILL OPEN MEMORIAL HOSPITAL

The Lee Surgical Hospital, San Antonio, has been purchased by a company of physicians and business men, and after extensive remodelling will be opened as a memorial hospital to the late Dr. T. T. Jackson, and will be known as the Jackson Memorial Hospital. The alterations will include the addition of two operating rooms, a modern laboratory, and other new equipment. The training school will also be enlarged. Dr. Jackson, at the time of his death, was general surgeon for the Southern Pacific Railroad, and was president-elect of the state medical society. During the Spanish American War he served as surgeon to the American troops in the Philippine Islands. During the late war Dr. Jackson served as a major in the medical corps of the army.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU GRAVES,
Home Economics Bldg., Cornell University, Ithaca, N. Y.

SOME DIETETIC PROBLEMS OF INFANCY AND CHILDHOOD*

BY ROGER DENNETT, M.D., ASSISTANT PROFESSOR IN THE DISEASES OF CHILDREN, POST GRADUATE HOSPITAL, NEW YORK CITY

THERE is no question but that dietetics is taking a greater and greater place in the practice of medicine. Particularly in diseases of children, is dietetics going ahead faster than any other one topic. We find now that there is a maximum of dietetics and a minimum of medicine. That is the modern trend.

In one hundred histories of my patients, which I picked out at random, regardless of time or place, with patients ranging from a day old up to puberty, twelve years, I found that in every case, I had gone into the question of diet. In fifty-four of those one hundred cases, I had given no medicine whatever, and the other forty-six were dietetics and hygiene entirely. That shows the way the modern pediatrist is practicing medicine today, and that shows how we are expanding, and what we are coming to.

I feel that there is a great future for dietitians, they have hardly started yet, much of the work that is now done by doctors will some day be done by dietitians. That is a rather broad statement to make; doctors are very jealous people and they hate to have their profession taken away from them. But that is the future, I am sure. I feel that even without a medical training, dietitians with the proper training will be perfectly capable, under the supervision of a well-trained, well-informed physician, of doing a great deal of this work.

Women Start Doing Contagion Work

Not many years ago, the department of health put in trained nurses to do a great deal of their inspection work in their department of contagion. They found that a woman could go just as well and find out whether the patient was properly isolated or not, and whether the proper precautions were taken against contagion or not, post a notice on the door, and do other routine things. They found that even school inspection could be done by those who were not trained physicians, and had not devoted anywhere from four to twenty years of their lives to studying medicine. Another place where the physician has been superseded, perhaps, in in optometry. It was very unpopular at one time to think that anybody but a trained physician should fit people to glasses. Optometrists are doing it, and so far as I know, many of them are doing it successfully.

In the same way, I feel that dietitians will do a great deal of my work. The doctor with the gold-headed cane, the old man of mystery, who poured out a potion, did not tell anybody what it was—and most of the effect of it was because they did not know what it was—is a thing of the past. The doctor today must educate the people. It is said that knowledge is in the hands of a few. That is not so; knowledge is being widely spread, and dietitians are among those who can spread it best. We must educate the people. One of my particular pet statements to my students is, "Look out—the layman is going to be better educated than you." For mother takes the *Ladies' Home Journal*, and the *Woman's Home Companion*, she has a dozen baby books on her shelf by Dr. Hall, Dr. Griffith, Dr. Dennett, and others. As a result, sometimes she knows a great deal about dietetics and children. The physician who has busied himself so much with medicine is going to be behind the times, therefore he must and is informing himself on questions of dietetics.

Dietetics Important in Infant Feeding

No doubt many dietitians, and I might say all of them, if they were sufficiently interested, could make good infant feeders. Infant feeding is one of the best examples of the curative value of food. We save lives time after time, thousands of them, by giving the proper food. If dietitians were permitted—and I feel sure they will be some day—to take our courses in infant feeding in the medical schools, they might feed a baby just as well as I or as any of my colleagues, after they had had this preliminary training, and the experience.

Another question in which everybody in medicine, particularly in pediatrics, and all dietitians, are interested, is that of malnutrition. These children in our schools who are under-nourished are incapable of doing their work in school. They are incapable of progressing mentally and growing mentally because they have not grown physically, and as they grow up they become the drones, perhaps, rather than the workers. They are never great successes, in many instances because of the poor start that they had physically, during their early years, and that is all due to the question of diet. I feel that a great deal can be done, and much is being done by dietitians throughout this country, to raise the general standard of health of children. That will tell in the future.

*Read at the third annual meeting of the American Dietetic Association, New York City, October 25-27, 1920.

Perhaps most of this work should be done in conjunction with expert medical aid, because we must pick out the children who have heart disease, or tonsils, or adenoids, or poor teeth, and that sort of thing, which perhaps would require expert medical aid, but the chief part is done and should be done by dietitians.

Scurvy Cured Almost Over Night

There are many things in diseases of children that are interesting us. I am speaking now of the curative value of foods. Consider the question of scurvy. The infant, perhaps a few months of age, who has developed bleeding gums, has loosened teeth, whose long bones are swollen, and at times and in extreme cases even paralyzed, who are having hemorrhages underneath the skin, and the various other symptoms that go along with scurvy, these infants can be cured almost over night by the administration of orange juice. I say almost over night, because literally the next day after the administration of a proper amount of orange juice, they are astonishingly better. Often in three or four days they are entirely well, and the rule is that after a week, except in the most desperate cases, all of the symptoms have disappeared. I had one child, in particular, who came down from Canada in plaster casts, brought in a clothes basket, because the slightest motion on the train would give that child intense pain, and he howled with pain if anybody came near the examining table. We made a diagnosis of scurvy, and gave orange juice, threw away the casts, and also the clothes basket. Inside of three days the child was perfectly well. It was a complete, almost miraculous cure, simply by the administration of orange juice.

Now, we are all tremendously interested in knowing why orange juice cures scurvy. Why does it? I am getting by the place where I am simply interested in names and words and terms. I don't care if you have new words. This new word, vitamin, that is getting terribly stale now, is just a word. Who knows what a fat-soluble A vitamin is, or a water soluble B vitamin? Nobody. It is just another word like our old word "enzyme." Enzyme is a very mysterious thing to this day. I remember in my early medical education twenty-two years ago, that they talked just as much about enzymes as they do about vitamins today.

Salts in Orange Juice Cure Scruvy

We can all guess at what these vitamins are. We can all guess at what cures scurvy, and why orange juice cures scurvy. My guess is that it is the salts, the minerals, the citrates, in orange juice which are the curative agency, and that scurvy is a nutritional disorder brought about by the absence of, or imperfect assimilation of certain salts. We all know that rickets is brought about by the failure to assimilate and utilize calcium and other minerals. I believe that within a very short time we will find just what salts they are, and what salts will cure scurvy. I believe that we will discover what these substances called vitamins are. And I believe that many of them are also salts and mineral matter, but that is only my belief, and doctors are not supposed nowadays to tell what they believe; they are supposed to tell and show what they have proved, and proved beyond the question of a doubt.

When I think of various things that prevent the decay of teeth, it almost includes the whole question of dietetics in children. The food, of course, must be properly balanced. There is no question but that there must be the proper quantity of minerals, and of fats, carbohydrates, and proteins. But there are other elements besides that. I had under my care a family of Swedish children. There were six or seven of them of all ages and they had the most splendid teeth, there was not a damaged spot in any one of them and they had been here in this country a long while. Our foreign element often has beautiful teeth when they come here, but how quickly the teeth of those brought up in this country will decay and go to pieces! On inquiring into their diet, I found that they had a very well balanced diet, but also that they all liked and had used this Swedish bread that is just as hard as a rock. I believe that aside from the improper quantities of the respective elements, and aside from the questions of indigestion, the use of the teeth is the most important thing in their preservation and development.

Fruit Especially Good for Children

In some of the other problems that we have to deal with day after day, for instance, the problem of constipation in children, almost invariably they will respond to the proper diet. Time after time if they are given the proper amount of vegetable matter, particularly the proper quantity of raw fruit, the constipation is overcome with the greatest ease. I don't think that once out of one hundred cases or more have I given a cathartic to any of my patients.

Children like fruit. They are particularly fond of raw fruit, and my usual routine is an apple or an orange, or pears, peaches, and plums, in season, before breakfast, just as soon as they awaken. Then we give them some sort of cooked fruit with their breakfast, a baked apple, or some prunes. We all have this terrible notion that the only thing that will cure constipation is prunes, but I cannot make my children eat things that I personally have a distaste for. In the middle of the day I have them eat another pear, peach, or apple, or any other fruit, and I seldom see a child that won't eat some more raw or cooked fruit several times during the day. That is our routine, and with it we almost invariably cure these stubborn cases of constipation in the children.

Diarrhea is a diseased condition which is cured dietetically. In the summer time, when diarrhea takes off hundreds and thousands of children throughout the city and country, with the proper knowledge of infant feeding, and the proper knowledge of dietetics in older children, they can be cured, unless, of course, they are overwhelmed by infection.

To go into the question of the curative effect of foods in diarrhea is rather too long a topic to take up here, but perhaps many of you are at least interested in the theory of foods in this disease. Theoretically, there is in the normal intestinal canal a flora of bacteria, known as an intestinal flora. In certain types of diarrhea we find that the bacteria causing it live on carbohydrates—on fermentable food—and that is called the fermentative diarrhea. In other types we find those bacteria that thrive upon protein foods, and this is called the putrefactive diarrhea. How easy it is theoretically to cure these cases of diarrhea by giving the proper food. A child that has a fermentative diarrhea may be cured by being given a protein diet, a milk diet, the theory being that the fermentative bacteria will be starved out and the diarrhea subsequently cured. On the other hand, in our putrefactive diarrhea, if we give a carbohydrate diet, sugars and starches, the putrefactive diarrhea will be cured.

There is another question in conjunction with the diet in children, and that is the fact that changes take place in cooking of various foods, particularly in the case of milk. Some of us believe that boiled milk is more effective than raw milk in certain instances, particularly in clearing up an intestinal indigestion. Going a step

further, there has recently developed a lot of work with dried milk, an extension of the process of the boiling. These questions of why boiled milk and dried milk are more effective than raw milk have to deal with the salts, I believe, because, although I won't go into it too deeply, I think the salts in milk are changed by this cooking process.

It may be interesting to know what foods we pediatrists think do the most harm among children, and also those which do the most good among children. Not that these foods that I am to mention are harmful in themselves, not that they should be discarded in the diet; but improperly used, what are the foods that do the most harm?

Foods That Do the Most Harm

Perhaps in the order of their importance, I would say that the four foods that were capable of doing the most harm are sugar, butter, soft breads, and meat. Sugar is a very necessary food, but it is easily fermentable, and because of its high concentration, it is more difficult to digest than a good many other foods. A child's tendency is to eat sugar, and the more he gets the more he wants. So my rather unique way of getting around the excessive sugar in my diets for children is not to allow them any sugar, and then they get more than they should have. There are always plenty of kind relatives, and the grandmother, or the nurse, or the mother, mixing a little sugar in the breakfast anyway. In most of my diets I leave sugar entirely out of the dietary, for my own reasons. In the first place, they don't like food without sugar on it at all, and after a time all cereals taste alike after they are sweetened. They don't learn to like the taste of oatmeal, or one cereal or another, because of the different tastes that they have, and finally they sicken of all of them. Then I say they get large quantities which tend to frequent attacks of indigestion, vomiting, and what not. So I find that by stopping sugar altogether I often do the best thing for the child.

In the malnutrition cases I cut butter out of the diet altogether, as well as sugar. I know it is taught in many of our malnutrition schools that in order to get the caloric value in twenty-four hours they should have a great deal of butter. But children who are not very well, whose stomachs are upset, and who are having gastric disturbances, are the children who will eat more and eat better, and digest the other kinds of food if the butter is left out altogether. I can put on weight tremendously on a very badly nourished child by putting it to bed, and keeping it on a milk and cereal, bread and fruit diet, only for a time of course. That is, in the most desperate cases of malnutrition and in some of my worst or youngest cases, I often cut out even the cream of the milk itself, giving a diet of cereals, skimmed milk, breadstuffs, and fruits—cooked fruits generally.

Prohibits Use of Soft Bread

I need not say much to you about soft breads, for probably all of you serve them. Soft breads are more or less of an American habit anyway. The Southerner has plenty of hot bread every meal, and the New Yorker has soggy bread that comes from his baker every morning, and he puts that into the stomachs of his children. You will find that it is almost impossible to get anything but the soft, more or less undone bread. In every one of my dietaries at all ages, I prohibit the use of soft bread. I have bread at least four days old, dried out, or I have it dried out in the oven, and give the hard variety of bread. In my experience I have found over and over again that I cannot treat these children successfully, I cannot stop their recurring disturbances, I cannot make them put on weight, and thrive, and do all the things that they come to me to do, without this one change in diet.

Finally there is the question of meat. We pediatrists rather scorned Dr. Rose for the stand that she took on meats, but I think that I personally am gradually coming around to her viewpoint. Those of you who have taken Dr. Rose's course at Columbia, particularly her summer course, will realize that this is a concession, but I think that she has been right. I feel that we do overdo the question of meats. I think the protein can be well supplied in our other protein foods and that our children are far better off without too much meat. I seldom give meats nowadays before three or four years of age. Some years ago I gave it at eighteen months, but I have gradually raised my age limit.

Foods That Do the Most Good

As to the foods that do the most good, of course, first we have to put milk. Everybody always does. The second would be vegetables. Third would be our cereals, and breadstuffs fourth if you want to put it so, that is, practically cereals and breadstuffs. Recently one of our most eminent authorities in research has said that he felt that people could very nicely live on milk and vegetables alone, and that without the green vegetables and without milk the diet is not complete.

There is just one other thing. I feel sure there is a little tendency toward overcarefulness in diet among the mothers I come in contact with. They have four or five books written by baby specialists and have consulted first one and then another. One of them says not to eat meat, and the other says that vegetables often cause intestinal indigestion. And so when they come to feeding their babies and children, they have taken out all of the different foods and have not anything to give them. This gives you the poor, malnourished child that has been so carefully fed that it has no flesh on its bones.

Now, there is that class of mothers, and it is quite a numerous class among the fairly well-to-do people. There is no question in my mind that if you don't give the stomach anything to do, it will deteriorate, just as when you don't give the teeth anything to do they decay. There is no question in my mind that a child's digestion must be, as I often express it, rather unscientifically, "educated." The child who has its food mashed up for it through a strainer during infancy and childhood until it grows up to be six or seven years of age, in the first place, will not like coarse foods, and in the second place, the digestive apparatus has never been stimulated to work. There are some mothers who will say, "Look at little Jimmy Jones. His mother lets him have everything, and he never has his stomach upset. He has lobsters and watermelon all in one meal, and a green banana on top of that, and it does not hurt him a bit." Well, I think there is more or less truth in that, although that is not good dietetics to preach. We must give our children some food that will make their stomachs work. I think one of the reasons for malnutrition among the better classes is this question of light suppers. We have told mothers so long that children should not have a hearty night meal, that they have limited them, giving perhaps just cereals and milk till the child detests the sight of a cereal; and then it comes down to milk with a little apple sauce. Such children, even at a fairly early age, I put on a hearty supper. I give them potatoes, starchy foods, rice and macaroni perhaps, with meat gravies on them to make them taste better, and even an egg at night and custard puddings. That is just the one meal that they

missed. They ate a fairly good breakfast and noonday meal, but when it came at night there was nothing at all given to them that was palatable, and that just lowered the number of calories that they received in twenty-four hours, so that they refused to gain weight.

NEWS ITEMS

Miss Ellen Gladwin of Jefferson Hospital, Philadelphia, enjoyed a short trip to Bermuda early in April.

Miss J. Katherine Haupt has been transferred from the United States Public Health Service Hospital No. 47, Markleton, Pa., to Buffalo, N. Y., care of the United States Public Health Service.

The Chicago Dietetic Association met on March 18, at the Hospital Library and Service Bureau room, 22 East Ontario Street. The social part of the program consisted of a trip through the new Drake Hotel under the direction of Mr. Tyler. The next meeting will be held on April 15. Miss Florence Nesbitt of the United Charities will speak.

Dr. August Widmer, chief of staff of the Val-Mont-Switzerland Sanitarium, spent several weeks in this country visiting people and institutions interested in dietotherapy. This sanitarium in near Lake Geneva, and is devoted largely to the treatment of diseases of metabolism. Dr. Widmer was accompanied by Dr. Turin, one of his staff doctors.

The regular monthly meeting of the New York Association of Dietitians was held at the Central Y. W. C. A. building, April 13, 1921. Miss Winifred Gibbs of the Borden Laboratory told of the work done in these laboratories and of the plan outlined by the company to be of service in treating malnutrition. Mrs. Mary DeGarmo Bryan, president of the American Dietetic Association, told of the plans for the Association for the coming year.

Miss Effie Winger, formerly of Cottage Hospital, Santa Barbara, Cal., has accepted the position of chief dietitian in the Swedish Hospital, Seattle, Wash. Upon Miss Winger's departure from Cottage Hospital, Miss Florence Smith was asked to assume responsibility for the entire dietary department of the general hospital. Miss Smith had been in charge of the Memorial Metabolic Clinic which is a part of this hospital. Because of the efficient work done in the clinic, the hospital authorities were glad to give her the larger field for service. Many of our readers knew Miss Smith at Presbyterian Hospital, Chicago.

At the regular meeting of the Home Economics Association of Philadelphia, the program, which was arranged by the dietitian's section of the Association, included the following papers: "Nutrition Problems," by Miss Anna L. DePlanter, in charge of the nutrition work at The Child Federation of Philadelphia; "Occupational Therapy for Medical and Surgical Patients," by Miss Ida F. Sands, director of occupational therapy of the Philadelphia General Hospital; "Occupational Therapy among Mental Patients," by Miss Mabel A. Bond, director of occupational therapy at Philadelphia Hospital for the Insane.

Occupational therapy is a recent departure of the public health department carried on under the direction of Dr. C. Lincoln Furbush, director of public health of Philadelphia.

Miss DePlanter's paper will be published in the July issue of THE MODERN HOSPITAL. Following are brief extracts of the other papers.

Miss Sands said in part: "When we offer work to some of the poor sick people, they refuse, saying, 'We are not here to work.' They remind me of an epitaph placed upon the tombstone of a woman who had struggled with poverty before her death, which read:

'Don't weep for me now,
Don't weep for me never,
I'm going to do nothing
For ever and ever.'

But the results justify the work, for after learning to knit, sew, or weave, if they are able, we find that the patient is more contented and improves in health. Many crafts are taught, as book binding, rug weaving, metal work, wood carving, basket making and tin toy making. Among these employments some are sure to appeal to the patients as well as prove possible in their condition.

"With four assistants, one a trained therapist, about three hundred patients are reached during a month. In our hospital the senior nurses are required to take an eighteen-hour course in occupational therapy, that they may have a better appreciation of the work and be able to assist on the wards at times.

"During the past year several chronic patients have been helped to better health and placed on the payroll, through the assistance given them in the workshops. Besides the help given these special cases, occupational therapy has been found to bring at least four decided benefits to the patients and hospital: (1) Through pleasant employment the attitude of mind is changed and the morale in the wards is greatly improved; (2) The stay of the patients is shortened because of improved health; (3) Many are taught some useful employment, some become self-supporting, thus lessening pauperism; (4) The hospital received during last year, 30,000 articles from this department manufactured by the patients. This included many garments, and linen for hospital use, as sheets, towels, etc."

Some of the points in Miss Bond's paper are given here: "On August 1, 1920, I received my appointment to organize a department of occupational therapy for the mentally defective women of Philadelphia Hospital for Mental Diseases. This is unusual in a hospital of this kind, but none the less greatly needed. Under Dr. Furbush, the director of public health, we hope to do a great deal for the insane poor of Philadelphia through this department. The men patients are given help through occupation at Byberry City Farms.

"An attractive pavilion was opened for use as a craft shop, and on August 23 the first class was started. From three in number, it soon increased to a large class. Ward patients are given attention, destructive patients being given burlap bags to ravel. These threads are wound by others and when dyed are woven into rugs. The work given the patients is carefully planned as to use, design, color, and material. This helps to make the article useful and saleable. During the past year the patients have made many different articles, as reed baskets, woven table runners and bags, embroidered linen pieces and dyed scarfs, sweaters and scarfs (knit), slippers, capes, and socks, woven rugs, and raffia baskets—157 articles.

"At present we have enrolled sixty-six women, thirty-six of whom work in the shop. Those given parole since August, when the work began, number twenty-four.

"The aim of occupational therapy is to heal through work. To this end we endeavor to gain the interest of the patient, interest in their personal appearance, environment, and in the problems of life.

"Through the cordial cooperation of the physician in charge we hope to do much to benefit the patients who are constantly being assigned to the class. Through clinical records, filed weekly for each patient, we can see encouraging progress in the class."

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Superintendent
Mt. Sinai Hospital, Cleveland, Ohio

THE MARKET'S TREND

By CHARLES L. HAYS, Chicago, Ill.

BUSINESS has turned the corner and there are signs of revival in a number of important branches of industry. Naturally the change for the better has come first, in the lines that were affected earliest by the slump in prices, and in which deflation has been most thorough. The leather business is a case in point. Tanneries are now operating almost at capacity, the demand for their product has quickened, and calfskins, which recently were selling at thirteen cents, have risen to twenty-three cents, while the hide trade is in a more healthy condition than it has been for nearly a year. Automobile makers have increased production, and the demand for cars shows improvement, although it is not yet strong. Textile mills are more active, and the movement of staple cottons and woolens shows an increase, stimulated by the fact that supplies in some important lines are running low. The trend of prices has been lower for the last month, but markets are now steadier. Merchants, however, still cling to the policy of buying in small quantities and often, avoiding distant commitments in most cases.

Money conditions are easier and interest rates are declining. The Federal reserve banks of New York and Chicago have reduced their rediscount rates on commercial paper from 7 per cent to 6½, the first change in nearly a year, and the rate on commercial paper has been lowered from 7¾ or 8 per cent a month ago to a range of 7 to 7½ per cent. The easing of the financial situation is much more noticeable in the East than in the West, liquidation being rather advanced there, but the wave of improvement is moving westward.

Crop Outlook Encouraging

An excellent crop outlook is one of the strongest factors in the business situation. While prices of farm products have declined to the lowest levels in seven years, producers seem to have abandoned the attempt to check the economic tide by withholding commodities from market, are selling freely and putting in a larger acreage this season to offset by increased effort, as much as possible of the loss sustained through lower prices. The government forecasts a winter wheat crop of 629,000,000 bushels, against an estimate of 621,000,000 bushels on April 1, and a harvest of 577,000,000 bushels last year.

Wholesale commodity prices on May 1 averaged 4.4 per cent lower than on April 1, as shown in Dun's index. All the groups of commodities making up the index show declines, the sharpest being in the case of meats, which declined 11.2 per cent and now stand only 11 per cent above the average in 1913. The 4.4 per cent decline during April compares with 4.1 per cent during March and 2.1 per cent during February.

This is a more favorable showing than that made in the last figures given out by the Department of Labor, which cover the month from February 15 to March 15 and show an average decline of 1 per cent in the retail cost of food. Fourteen of the forty-three articles dealt with in this index showed increases, as follows: cabbage, 17 per cent; granulated sugar, 9 per cent; pork chops, 8 per cent; sirloin steak, round steak, rib roast, chuck roast, butter and cheese, 2 per cent; plate beef, ham, lamb, hens, and bananas, 1 per cent. Decreases were recorded as follows: eggs, 13 per cent; rice and prunes, 7 per cent; lard, 5 per cent; oleomargarine, corn meal, potatoes, and oranges, 4 per cent; onions and canned tomatoes, 3 per cent; flour, rolled oats, navy beans, and canned corn, 2 per cent; canned salmon, fresh milk, evaporated milk, bread, macaroni, baked beans, canned peas, tea, coffee, and raisins, 1 per cent.

Since these figures were compiled, there have been further important declines, butter being down to thirty cents in the wholesale markets, eggs to twenty-two cents and sugar to six and a half cents. Potatoes are fifteen to twenty cents lower than a month ago, at seventy to eighty-five cents a bushel. The mild spring has brought much fresh produce into market earlier than usual and this has had a weakening effect on prices generally.

Unemployment Increased

The month has brought about a considerable increase in the number of unemployed as a result of strikes and walkouts. Only in the building trades, however, have the results been serious. Construction work is almost at a standstill in Chicago, where it is estimated that 16,000 have been made idle by the lockout, but in other cities of the Central West there is moderate activity. With steel prices stabilized by a reduction of $8 to $10 a ton by the principal producer, with brick off 25 per cent at $12 to $14 a thousand, and substantial reductions in lumber and other supplies, the opinion seems to be gaining ground that materials are about as low as they are likely to be for some years, and only the labor situation stands in the way of a resumption of activity. It is hoped that the present clash will lead to the breaking up of the tripartite combination of labor unions, contractors, and material dealers, and independent action in all branches

of the industry; but assurance of this is by no means strong, and in any event the costly delay probably will make it impossible to accomplish much this year toward relieving the acute housing shortage.

The seasonal demand, although much less than usual, has been sufficient to cause pronounced strengthening of the markets for paints and paint materials. Linseed oil is back to sixty-seven cents after declining to as low as sixty-one cents, and turpentine also has had a considerable advance to eighty-two cents. In both cases a better export demand has contributed to the rise.

Household furnishings are still moving slowly, high prices and the small amount of new building acting as deterrents. Staple cottons for bedding have been further reduced, but the market for these has strengthened somewhat because of increased demand, particularly for well known branded goods. Blankets also are more moderately priced, in line with the movement in almost all manufactures of cotton and wool. Outings are lower, but a strong popular demand for ginghams and percales keeps these materials firm.

Few Changes in Drugs

Drugs and chemicals are rather inactive and without important price changes. Quinin is steady at sixty-six to sixty-eight cents for Java, and seventy cents for domestic, with a fair inquiry for small quantities. Formaldehyd is easy, sales being reported at fourteen and a half cents a pound. Codliver oil is slightly lower, but dull at the decline. There is evidence of keener competition among dealers, but the effect has been confined mostly to the market's tone and is not reflected in actual transactions.

There has been some improvement in the demand for coal, and this is reflected in greater transportation and mining activity; but the placing of orders is still far behind the volume usual at this time of year, and this fact has prompted warnings by leaders in the fuel industry of a famine next winter unless more consumers provide for their needs in advance. Statistics of mining operations seem to give some color to this forecast. According to the reports of the United States Geological Survey there have been produced since the first of the year only about 115,258,000 tons of bituminous coal. Last year at this time the production had aggregated 153,553,000 tons, and even with that output the public had considerable difficulty in obtaining its supplies in the winter, and had to pay excessive prices for much fuel. Withholding of orders evidently is based on the hope that prices will go lower, but with mine output held down to current sales, and the chance that industrial requirements are more likely to increase than to diminish, it is doubtful if these expectations can be realized. Best informed operators and dealers, however, avoid predictions as to prices.

The effect of unemployment is noticeable in a further decrease in savings accounts. The change is slight, and is nearly offset by the gain in some localities where there has been industrial revival. Purchasing power of the public does not seem to be greatly lessened, as judged from the turnover of retail merchants, which compares favorably with that of the corresponding time last year. Investment demand is very good, and recent issues have found a fair market, industrial securities yielding around 7½ per cent, and railroad and utility bonds at 6¾ to 7, some of the latter having behind them exceptional security, and running as long as fifteen years.

DUST AND POSTOPERATIVE TETANUS IN HOSPITALS

By A. WAYNE CLARK and GUSTAVE S. MATHEY, Research Laboratory, Johnson and Johnson, New Brunswick, N. J.

IT HAS come within our experience several times during the past few years to assist the surgical staff and bacteriologists of hospitals, in an endeavor to determine the source of postoperative tetanus infections.

The matter is a very serious one, and in a responsible, high-class hospital is so regarded. There is nothing that produces a worse condition of worry, chagrin, and almost panic among the staff, than this occurrence after several clean operations.

Commonly a hurry call is sent for the scrub woman and for the bacteriologist. Everything used in the operating room is suspected. Unfortunately for the bacteriologist, in his endeavor to determine with positiveness the source of infection, a general scrubbing up of the premises is the first move. This is entirely justified and is the correct procedure, but the chances are large that it will wipe out hope of definitely placing the source of infection. The efficiency of the sterilizer is checked up, catgut is suspected and examination of it begun, and all the hand and glove sterilization methods are given careful scrutiny and bacteriological test.

Rotary blower and air filtering box. The box contains two screen-covered frames about eighteen by thirty-six inches, placed in its center. Between the frames is a layer of cotton. The air from the blower enters above the cotton and the outlet is below.

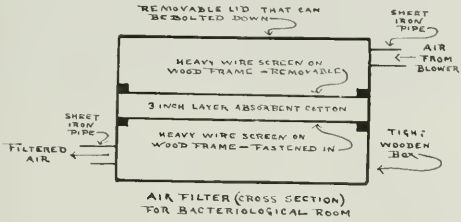
Unfamiliar with Sources of Infection

All surgeons are familiar with the ordinary sources of pus infection, but with these tetanus cases they are more or less unfamiliar. Probably most surgeons go through their entire operative experience without a single case of postoperative tetanus.

As we will attempt to show here, however, there is no excuse for thinking that these infections will not occur, even though a thousand successive operations have been free from them. This is written, therefore, in an endeavor to point out this ever present danger, to indicate a possible source of infection, and to suggest means for reducing it to the minimum. It will perhaps be worth while for us to outline here in clear form the bacteriological principles involved.

Most surgical infections are due to the pus-organisms.

The human skin is their habitat. Hence cleansing of the patient's skin, the use of iodine or other antiseptics on the skin, the cleansing of the operator's hands and covering them with sterilized rubber gloves, are necessary precautions. The skin being always moist, there is almost no danger from particles falling from it in the form of


REMOVABLE LID THAT CAN BE BOLTED DOWN
SHEET IRON PIPE
AIR FROM BLOWER
HEAVY WIRE SCREEN ON WOOD FRAME — REMOVABLE
3 INCH LAYER ABSORBENT COTTON
SHEET IRON PIPE
FILTERED AIR
HEAVY WIRE SCREEN ON WOOD FRAME — FASTENED IN
TIGHT WOODEN BOX
AIR FILTER (CROSS SECTION) FOR BACTERIOLOGICAL ROOM

Detail cross-section plan of cotton air-filtering box, showing construction.

dust. The usual way in which the pus-organisms come into the wound, therefore, is by direct contact with the skin, i. e., rubbing off the surface. The pus-organisms also may be carried from the skin into the tissues by using a knife in cutting through the skin, and then using the same instrument in the underlying tissues. All surgeons are familiar with these conditions.

Of course, pus-organisms can be carried as dust, but that is not usually an important factor. An additional reason for this is that the class of organisms that include the pus-producers—the cocci—die very quickly when dried and exposed to air and light.

The tetanus bacillus, however, is of a different order. It forms spores and these are extremely resistant to heat and chemicals, and are not at all harmed by drying. These spores can live for years in the dry state and are blown about as dust.

The habitat of the tetanus bacillus is the earth or soil, and in some places is extremely common therein. Tetanus spores are also found on vegetables, tubers, and fruits, and through these they may be transported from districts where tetanus may be most prevalent to those where it is less prevalent. Around stables and manure in general it is common, probably this is due to the animals having been fed on grain and hay from fields with tetanus-infected soil. It can be readily appreciated that from such infected feed the tetanus spore might pass through the intestinal tract and appear in the feces.

Dust Easily Reaches Operating Room

No one needs to be told that soil itself and particles of manure are constantly carried right into hospitals on everyone's feet. It is self-evident, therefore, that tetanus can reach the operating room of almost any hospital as dust, blown about in the hospitals or through the windows, and therefore that dust prevention in hospitals is an impotrant consideration. We think it is of much more importance than it is generally considered. If anyone doubts the importance of the dust question, let him stand in a room almost anywhere, with bright sunlight streaming in at a window, and look through the beam of light toward a black or dark object beyond. Swirls of dust following every passer-by will almost surely be seen. Many of these dust particles are carrying bacteria—some are quite likely tetanus. That being the case, is there any reason why they shouldn't get into the operating room and into the wound?

Just how frequently tetanus does gain access to operative wounds, is difficult to judge. As a matter of fact, these organisms may not infrequently be present undetected, for the reason that tetanus is one of those peculiar organisms, called anaërobes, which can grow or multiply only in the absence of air, that is to say of oxygen. In culture work in the laboratory it is necessary to heat the culture broth so as to drive out any dissolved oxygen and to place on its surface, after cooling, a layer of liquid paraffin to keep out the air. Tetanus will grow under these conditions, but not at all in the usual tube plugged with a cotton stopper.

It has been authoritatively stated that tetanus cultures injected directly into the blood stream fail to cause the disease, for the reason that the organism is unable to multiply because of the oxygen in the blood. Such being the case, it can readily be appreciated that only certain conditions in a wound can be favorable for the development of tetanus. There must be a restricted blood supply and air must be excluded. This of course is a not uncommon condition.

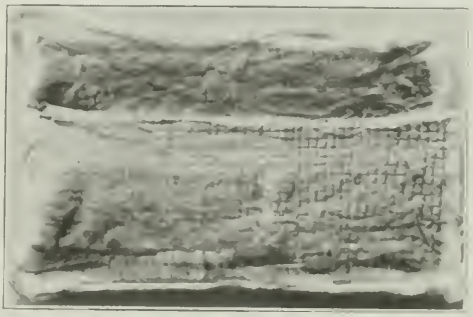
Under proper conditions tetanus will grow when another organism that is strongly aërobic, accompanies it. This other organism then takes up oxygen so rapidly that it protects the tetanus from its effects. Such a condition is quite possible in a wound.

In our laboratory work, in the testing of enormous numbers of samples of dressings and ligatures, we are constantly encountering this general subject of air-borne bacteria. We have given the subject close attention for many years and have provided ourselves with special equipment to protect against such bacteria being carried into our bacteriological work-room. We are intensely interested in this subject and believe our experiences and our suggestions will be received in an understanding way by hospital authorities.

There are some features of this equipment which are applicable to hospital operating rooms and some that may not be, or are only indirectly so.

Complete freedom from dust is plainly impossible, but to reduce it to the smallest possible amount is, we believe, well worth the careful consideration of hospital authorities.

Just how to go about this is the question. Almost anyone can make some simple helpful suggestions. Every housekeeper knows, for instance, that dust accumulates on the tops of shelves and other objects in a room. An accumulation of such dust, if caught in a draft of air, is blown about. One simple remedy for this is to avoid as much as possible, in a room, all objects that have exposed upper surfaces. This will suggest to anyone to avoid



Upper side of layer of absorbent cotton removed from air-filter supplying bacteriological workroom, after somewhat more than one hundred hours of use. The black specks are flies.

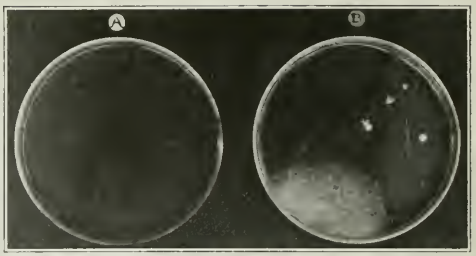
roller shades at windows, lighting fixtures anywhere but in the ceiling, etc. These things are generally not given thoughtful consideration.

Several remedies suggest themselves in the case of wrongly constructed or badly placed permanent fixtures which are already installed. For instance, see that the operating and instrument tables are not directly under any such fixture. Another suggestion is the use of a glycerin solution in water, of about 10 per cent strength, in wiping off all such fixtures. This will leave a permanent wet and sticky coating, which will to a certain extent hold any dust that settles upon it.

Our bacteriological work-room is plastered throughout in one piece. The ceiling, walls, bench, and floor are a smooth, continuous sheet of magnesite plaster, coated with wax. There is a drain in the floor and in the center of the ceiling is a high-pressure sprinkler connected with the water system. By turning a valve, the entire room is sprinkled with water, which washes the walls, work-bench, and floor. The sole purpose of this construction is to eliminate dust.

For producing a dustless air supply for the room we have investigated numerous devices and methods, and have constructed and experimented with several. One was an electrical heating system by means of which we sterilized air by passing it over resistance wire, heated by the electric current. An effective and much simpler device, however, was made by constructing a wooden box containing a single three inch layer of absorbent cotton. In about the center of this box, measuring from bottom to top, there is, in a horizontal position, one fixed frame and one removable frame, each covered with heavy wire screen, the inside size being about six hundred square inches. A layer of cotton about three inches thick is laid on the first screen and the removable screen is placed upon it to hold it down. The direction of the air flow is downward through this cotton. This gives a filtering area of about twenty times that of the pipe conveying the incoming air from the blower, and so correspondingly reduces the speed of travel through the cotton filtering medium. The source of air supply is a rotary blower, motor driven, the size of the delivery pipe being six inches in diameter. Another delivery pipe from this

Bacteriological workroom, showing exterior, with operators inside seen through the plate glass, sealed window. The room is plastered throughout on the inside, is provided with a high pressure sprinkler, which washes down every part of it, and is supplied with air, filtered through cotton.



Four-inch Perri plates of agar culture medium, used for testing the air in bacteriological workroom. Plate A was lying open in the room for one hour while air was supplied through the filter. There are no colonies on it. Plate B was lying open in the room for one hour while air was supplied without passing through the filter. There are thirty-four colonies on it.

filter box carries the air to the room after it has passed through the cotton.

We have by these means succeeded in providing ourselves with a room that is practically germ free, and with an air supply which enables it to be maintained in that condition practically for an indefinite period of time.

How far these almost ideal conditions can be applied to surgical operating rooms is a matter for study on the part of the staff, but we suspect that they can be almost wholly adapted. We certainly see no reason why an operating room cannot be supplied, during operations, with a copious supply of warm filtered air delivered near the ceiling. In this case all windows can be kept shut and what little motion of the air does exist, will be outward, thus tending to move all dust in that direction.

Enamel paint, glass, and other smooth surfaces are no novelty to the surgeon, but we emphasize the desirability of looking more closely to the dust problem from the viewpoint both of avoiding the tracking-in of dirt, which will later form dust, as well as keeping down the dust already in the operating room. Operating room doors should be kept closed and no unnecessary traffic to and from the room should be allowed. There is commonly not nearly enough of the feeling that the operating room is a holy of holies, not to be entered unnecessarily, and then only under certain conditions.

BUYING VEAL

It is not usually advisable to buy a large amount of veal at a time, that is, a whole carcass. Of course, it is not of great weight like that of other animals, but the cuts are not so readily utilized, mostly because of its unpopularity. One reason for this is that it is rather tough, which means long, slow cooking. It is low in fat, so other fats are needed in combination.

The wholesomeness and digestibility of veal were previously thought to be questionable, but the latest experiments are more hopeful in these respects. It is a law in the United States that veal should be three weeks old or more at the time of slaughtering. In Europe, it is slaughtered as young as three days, with apparently no ill effects.

Veal should be a pinkish color, the fat firm and white. It is used often to camouflage chicken, indeed it helps to extend "chicken à la king." The meat being light colored and with highly seasoned accompaniments, can hardly be detected. Some of the most favored veal cuts are the sweetbreads, liver, and veal chops.

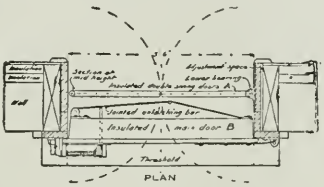
It is best to partly cook veal before storage, this is quite simple because it is certain that it will not be purchased in large quantities.

REFRIGERATION IN HOSPITALS

By JOHN E. STARR, Member A.S.M.E., and A.S.Rfg.E., New York City

IN THE original planning of a hospital, some attention should be given to the shape and grouping of the rooms to be insulated. The larger refrigerators are usually "built in" to the structure, especially in the culinary department and morgue.

By far the greater part of the heat to be taken away (equals cold produced) comes through the insulated walls, and the amount of refrigeration required is more in proportion to the square area interposed between the cold inside and the warm outside than to the cubic contents. Hence, the shape of a room to be cooled has much to do with its cost, both of installation and operation.



A box ten by ten feet exposes 600 square feet of heat receiving surface, and contains 1,000 cubic feet, while a box six by six feet exposes 216 square feet of surface, and contains 216 cubic feet.

The first cost of these boxes and their cost of operation is more in the proportion of 216 to 600 than in proportion of 216 to 1,000, although the larger box contains nearly five times the cubic area of the smaller.

So, too, a box ten by ten feet contains the same cubic contents as a box twenty by five by ten feet, but the former has 600 square feet of surface, and the latter 700 square feet or 16 2/3 per cent more, and it will cost about 16 2/3 per cent more to build, and 16 2/3 per cent more to refrigerate. So the general rule is to keep as near a cube as possible. A perfect cube is seldom practical, but the nearer a cube the better.

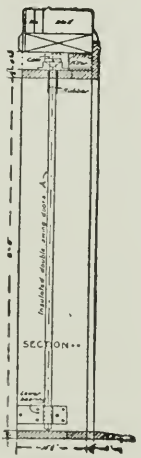


Diagram of insulated door for larger cold storage rooms.

Also, in grouping the refrigerators, it is wise, wherever possible, to have the various compartments enclosed in one area. For example, six compartments, each ten by eighteen by eight contain 8,640 cubic feet. If all separated, they expose 4,848 square feet between the warm and cold air. If grouped together, they can be arranged to contain the same cubic contents but only expose 3,216 square feet, and they will therefore cost only a little over two-thirds as much to build, and about two-thirds as much to operate. Where refrigerators are to be placed on two floors, the upper group can often be placed immediately over the under group and so save heat exposed surface.

It is possible in the culinary department and in the mortuary to practice economies in shape and grouping, but in the wards there is a requirement for detached refrigerators, perhaps one or two on a floor, and widely separated, so that little economy can be exercised here.

The correct balance between cost of insulation and operating costs indicate an insulation that will not allow more than 1.6 to 2 B.t.u. of heat to pass per square foot, per day, per degree of difference of inside and outside temperature, which means a pretty good insulation, from three to four inches of ordinary standard insulating board, such as cork, hair felt, mineral wool, etc. There are many of such insulators in the market, all of about the same heat insulating value per inch thickness per square foot.

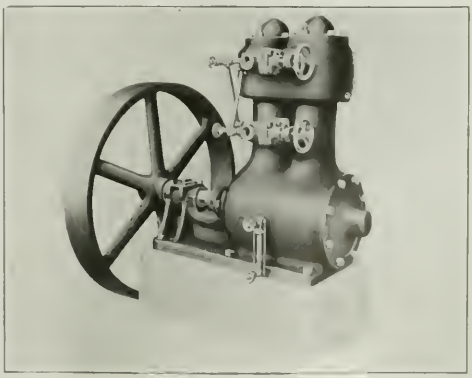
The modern method of cooling is accomplished by boiling a liquid of low boiling point and so taking up heat, either by boiling the liquid in pipes placed in the rooms or areas to be cooled, thus taking up heat directly (called "direct expansion"); or, in large hospitals, it is done by cooling an non-congealable liquid such as common salt brine (chloride of sodium), or chloride of calcium brine, and pumping this cold brine to the refrigerator where it circulates through piping placed in the refrigerators, and returns to the cooler, from which it is pumped again to the refrigerators. Thus it runs in a continuous circuit taking heat from the refrigerators and delivering it to the cooler.

The cooler evaporates the liquid to a gas and the so-called machine compresses the gas, with the assistance of cooling water, to a point where the gas liquefies or condenses, and the liquid is used over again, as it is much cheaper to liquify the gas on the spot than it is to buy fresh liquid.

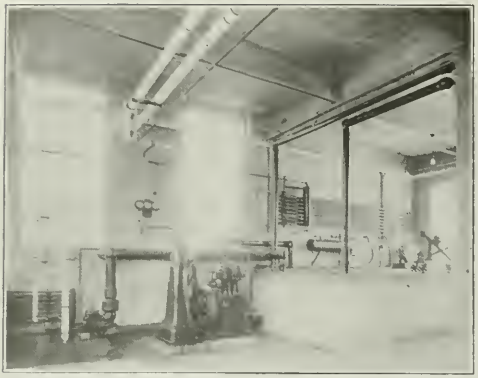
Ammonia, for example, costs thirty-one cents per pound, and one pound of ammonia in boiling to a gas takes up about as much heat as three and one-quarter pounds of ice would take up; or, the boiling of about 600 pounds of ammonia would take up as much heat as a ton of ice.

To buy 600 pounds of ammonia would cost at present about $189.00, but to recompress 600 pounds of ammonia gas to a liquid would cost only a few cents. Hence, we have the compressor and condenser of the compression machine, or the absorber still and condenser of the absorption machine.

Several liquids can be used. Anhydrous ammonia is the most common one. Any temperature above 28° below zero (F.) will boil it to a gas at atmospheric pressure, and any temperature above zero will boil it to a gas at



A typical gas compressor for belt drive.



A compressor driven by a vertical steam engine. It operates refrigerators either by brine or direct expansion. It also operates the small ice making tank shown on the right.

fifteen pounds pressure above the atmosphere. The gas condenses again to a liquid at 70° F. at 114 pounds, gauge pressure, and at 90° F. at 166 pounds gauge, so it is a convenient liquid to use as it gives a wide low range of temperature at pressures from 0 to 25 pounds gauge, and condenses at temperatures given by ordinary water supply at from 60° to 85° at reasonable pressures.

Carbonic acid (CO^2 or carbon anhydride) is often used. It boils at zero Fahrenheit at 273.3 pounds gauge, and at 10° above zero at 358 pounds gauge, and at 20° above zero at 407 pounds gauge. It condenses to a liquid at 70° F. at 830 pounds gauge, or at 85° F. at 1,011 pounds gauge. Although the pressures seem high they are easily held in extra strong pipes, with little leakage. If there is a leak of CO^2 it is hardly perceptible to the sense of smell, while a slight leak of ammonia is somewhat offensive to some people.

Chloride of ethyl is often used, especially in small machines. It boils at a vacuum at low temperatures and condenses at 60° to 80° at low pressures. If it leaks its smell is not offensive.

It must not be supposed, however, that low pressures mean less power per unit of refrigeration. Low pressures mean a large volume of gas at the evaporator, so that it takes as much power to compress enough gas of one fluid as of another to produce enough liquid to yield a given amount of refrigeration. Sulphur dioxide and chloride of methyl are also used.

All of the liquids used have their special advantages and disadvantages. Water can be used, but it boils at its freezing points of 32° F. at the very low vacuum of 29.74 inches, or very near no pressure at all. This is a hard pressure to maintain and as the low temperature is limited to about 32° F. it is not flexible. But ice has been made by boiling water at near 32° F. and water has been cooled, both on a commercial scale. Water would be a good liquid to use if our terrestrial requirements as to refrigerating temperatures were not so low.

In all large hospitals, the brine method of cooling is preferred to the "direct expansion" method, or cooling the rooms by directly boiling the liquid in room piping; for the reason that where there are a large number of refrigerators the feeding of brine into the room piping is much more easily managed and understood than the feeding of small amounts of refrigeration fluid. Also there is less trouble from leaks and objectionable resulting odour, the latter, if it occurs, is confined to the engine room.

In the large Bellevue Hospital in New York, there is a large brine system extending over an area of several blocks, with its flow and return insulated brine mains and miles of cooling brine pipe in the refrigerators.

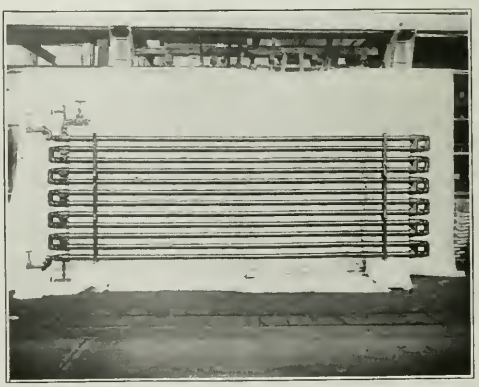
The temperature of the boiling fluid depends on the pressure at which it is boiled, the same as in boiling water. The lower the pressure the lower the temperature and vice versa. Of course, the lower the pressure at which it is boiled, the greater the volume of the gas per pound, and with condensing pressures the same, it costs more to create low temperatures than higher ones. So the rule is to boil out at the highest temperatures that will do the work.

Of course, as the temperatures are colder, the amount of heat receiving surface can be less; practically, however, the refrigerating fluid is boiled out at about 5° above zero.

This gives about 10° or 12° above zero in the brine, which, in turn, cools the refrigerators to the required temperature with a reasonable use of piping, and about balances the cost of piping and the cost of operation, and gives good results.

In condensing the liquid to a gas, water is commonly used to take the heat out of the compressed gas, or to cool it. The compressed gas is driven by the compression pumps into a series of pipes over which water is sprinkled so it runs in a film over the pipe surface, or often a double pipe condenser is used which is simply a pipe within a pipe. The water runs through the inside pipe while the compressed gas occupies the space between the inside of the outside pipe and the outside of the inside pipe. Several lengths of double pipe may be used in compact form, connected by suitable fittings or return bends to keep the water separate from the gas, but to allow heat to flow from the gas to the water through the iron walls of the pipe.

Considerable water is used. For example, a large hospital might use fifty to 100 gallons of water per minute; from 72,000 to 144,000 gallons per day, but the water after it leaves the condenser is available for any other use, as nothing is done to it but heat it up to ten or fifteen degrees. It is not in any way contaminated. If the water is not to be used over again for drinking purposes, it may come from any source that is reasonably clear and cool—even brackish or salt water can be used. Where water is scarce or expensive a device known as a "cooling tower" is used where the same water is used over and over again and is cooled by its own evaporation, in



A small "double pipe" condenser.

which case only enough fresh water is added to make up for the evaporation, a comparatively small quantity.

For special purposes such as ice cream making, sharp freezers, and morgues for frozen bodies, a lower temperature is required than the average of other work (such as ordinary food preservation) in which case a special arrangement referred to hereafter is often employed.

The variety of refrigerating machines adapted for hospital refrigeration offered in the market is very great, and many manufacturers are represented, as a glance at the advertising columns will show. Any one of fifteen or twenty reliable manufacturers can furnish all necessary apparatus and advance their claims of superiority.

In all hospitals, the potable and boiler water question is one of great importance. All waters are not suitable for use either from a pathological or technical standpoint, but nearly all water can be treated by apparatus, chemicals, and electrical agencies, so as to render it fit for any use.

A large number of concerns make a specialty of water treatment to render it potable and otherwise usable, and there is a requirement for cooling quantities of it for potable purposes in all departments.

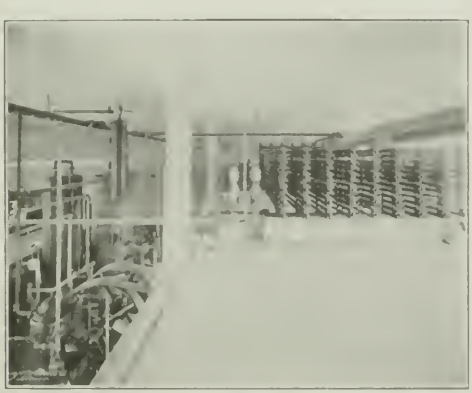
In a compact hospital, a central water cooling system is established with flow and return mains kept constantly and automatically full of cold water throughout the building. A temperature of about 40 in the water is usually held.

In hospitals much spread out, local water coolers are placed in each section or pavilion, from which water is pumped in circulation in flow and return insulated mains conveniently located. From these mains short runs are taken to taps so that the water will always be cold at first draw off into drinking vessels or bubbling fountains.

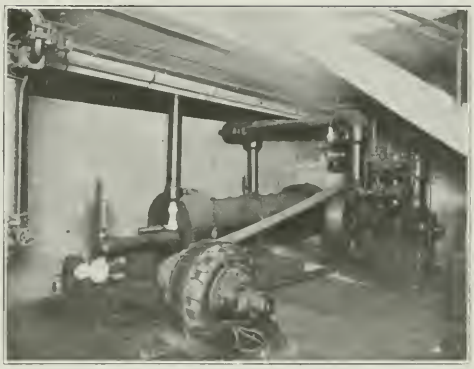
The water is usually treated at first, if necessary, or filtered, and is often in circuit exposed to ultra violet rays which render it sterile. The mains are insulated with standard cold water insulation, somewhat lighter in insulating value than the brine mains, as the difference in temperature between the water and air is somewhat less than between the brine and air.

Numerous types of cold water piping insulation are on the market. Plain black pipe is usually used, as galvanized pipe frequently engenders a zinc solution in the water which is harmful.

For an extensive system a closed or pressure cooler is used, which is supplied with either direct expansion



A large power house interior, showing stacks of condensers at the right.



A motor driven compressor with brine cooler and brine pump.

or brine coils, and insulated, as this form can be placed anywhere in the water circuit.

An open cooler, or one exposed to atmospheric pressure can be used at the bottom or top of the system, in which case a medicated absorbent cotton vent is employed to purify any air that may come in contact with the water.

An ordinary water pump with the water end insulated is used for circulation, and also an automatic float inlet to make up any water drawn off. The inlet can be from the pressure filters, or if there is no pressure, a make up pump can be used, the pump being started, or the inlet opened, by an electric device governed by a float at the top of the system.

It often happens that a comparatively small amount of low temperature work is required in a hospital. Sometimes the bulk of the load as for food preservation, milk cooling, and water cooling, only calls for temperatures from 30° to 40° easily obtained by brine at 10° or 12°, while a small amount of work has to be done with temperatures of 0° to 5°, as in ice cream hardening. In such cases a "booster" compressor is often employed.

The evaporator for this takes its liquid from the main liquid supply. Its suction is run at low back pressures and therefore low temperatures. The suction runs to the booster compressor which discharges into the main suction line and the main machine compresses this gas back to a liquid. In this way low temperatures can be maintained as to a part of the plant, while on the balance of the plant (which may be the larger part) heat may be taken up on a higher plane. This obviates the necessity of taking up all of the heat on the low plane, and tends to operative economy and lower first cost of apparatus.

In the mortuary department, where bodies are to be kept until called for, or for dissecting purposes, it is usual to build freezing refrigerators, well insulated and piped for good circulation, and supplied with individual cells running from floor to ceiling. The bodies are laid flat on trays and slid into the cells or compartments. Each compartment has its door so that any door may be opened without opening the rest, and the tray with its body slid out. It then may be used for dissecting and if not all used may be returned. For exhibition, low boxes are built with sloping tops, and the bodies are laid on slightly inclined trays visible to the full length through glass covers of the top.

A temperature of 20 , which preserves the bodies indefi-

nitely, is maintained in these refrigerators. Cadavers of children and babies are often laid on metal grated shelves in the freezers.

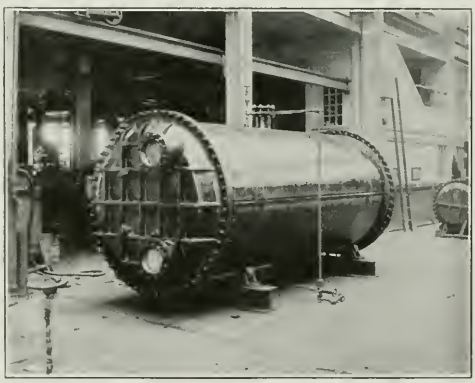
Most of the detached refrigerators are supplied with a milk compartment holding about a forty quart can, mounted on a sliding platform easily pulled out with the can, or else the can is set on a shelf bracketed to a well-hinged door that brings the can out when the door is opened. Bottles for modified milk are usually stacked on grated shelves.

Small, sharp, hard freezers for freezing tissue from which to cut thin slices for the microscope can be operated by a "booster" compressor, and held at 20° to 30° below zero.

The large "built in" refrigerators usually have small tile floors and sides of earthenware composition. Enameled iron sides often show rust discoloration at joints, but in stock refrigerators the lining can often be made in one piece with no joints. Vitreous enamel should always be used, as paint enamel does not last well. If a continuous vitrified enamel cannot be used, a heavy glass lining on the smaller boxes is recommended, but it must be heavy and tough, say from seven-eighths of an inch to an inch thick. Lighter glass is likely to break.

Monel metal grated shelves and shelf supports are probably the best. All corners should be rounded and all bases coved so that the refrigerators can be easily and thoroughly cleaned.

On the outside, all surfaces should be plain and flat;



A large brine cooler.

no fancy moulding or other dust catchers should be allowed. If a tile finished base is used, the sides should come flush without a bench.

For the large "built in" refrigerators, a white tile outside finish makes a handsome appearance and is sanitary and easily cleaned. The smaller detached boxes are usually finished in hard wood, toned to match the building trim.

Where refrigerators are higher than the eye level, it is a good plan to have the top sloped to the front and visible. An accumulation of dust on a high, flat top is thus avoided.

Great care should be used in the selection of hardware. Locks, catches, handles, and hinges should be heavy and not liable to breakage. Broken or imperfect catches and sagging doors due to poor hinges are responsible for 90 per cent of all refrigerator troubles.

Where pipe bunkers are used, they may be lined with galvanized iron.

In some climates it is desirable to cool a ward, or some portion of the habited space.

This is best accomplished by passing air through a water cooled air attemporator or conditioner, and discharging by ducts into the area to be cooled.

To be sure, the air can be cooled directly by brine or direct expansion piping, but there are conditions as to humidity and proper ventilation that can best be met by an air conditioner. There are several in the market.

If the water is not cool enough, it can be cooled and run to and from the conditioner in a circuit with proper provision for renewal. An ordinary water cooler is used for this purpose, and the air can be kept at any temperature and any condition of humidity. The content of CO^2 can also be kept down to the required limit.

An ozonizer can be used in connection with the air circuit if desired, giving a predetermined ozone content.

An ice making tank is a usual adjunct to a plant of this kind, either making ice in the modern way from pure "raw" water, or else from distilled water obtained from condensing steam used in the engines.

The ice is used for cracking up for fever patients, table use, etc., although mechanical compresses fed by cold brine in regular circuit have been used successfully in large establishments. It is easily attemperated.

Ice breakers and cubators, power and hand driven, of reliable make are sold by several concerns.

In some small hospitals, ice, and ice and salt refrigeration is still used. Galvanized iron cylinders can be placed extending from floor to ceiling at one or both ends of the room to be refrigerated, and provided with proper bulkheads to insure air circulation.

The tops of cylinders can extend through the floor above and be provided with insulated plug covers so that the cracked ice and salt can be renewed from above without entering the refrigerator. Temperatures below freezing can be thus maintained if desired.

For the small refrigerators, ice is used in the usual way. But where the total amount of heat to be taken equals or exceeds the amount that 1,000 pounds of ice would take up, it has now become almost the universal practice to use mechanical refrigeration as above indicated. The apparatus for this purpose is highly specialized by responsible concerns and its use is more flexible, much cheaper, and more sanitary than ice.

A NEW IN AND OUT REGISTERING DEVICE FOR THE ATTENDING STAFF

By L. A. SEXTON, M.D., Superintendent, Hartford Hospital, Hartford, Conn.

One of the many ways that a hospital has of showing its appreciation of the large amount of time given it by the attending staff, is to see that all their telephone calls reach them as promptly as possible. Failure to get a call through in many instances means that the patient goes to another physician, particularly is this true of emergency cases.

This always proves embarrassing to the hospital, and a material loss to the physician. If the hospital is to have the cooperation of the staff, every means should be employed to further their interests, as well as those of the hospital. With this idea in mind, it became apparent to us that it was necessary to have some definite means of knowing when the attending were in the hospital, and of reaching them promptly. This meant that there must be some sort of registering device to let the telephone operator know when they came in and went out.

The system we devised at the Hartford Hospital, Hartford, Conn., is an exceedingly simple one, and was made and installed by our own force, except the switchboard, which was made by a local manufacturer.

The switchboard, see Figure 1, consists of sixty sets of push buttons with a name plate under each set. These are arranged alphabetically and each one has a wire running to a twelve volt 2 candle power lamp, located with the telephone switchboard, each set having a common return. These wires are connected to the general lighting system with a 100 watt transformer which consists of 110 volt primary and a ten volt secondary. The reason for using a secondary voltage lower than the maximum lamp voltage is that it saves the lamps from at any time connecting up to the full candle power, and extends the life of the lamp accordingly.

The drop in the voltage with all sixty lamps on at one time is not over 40 per cent, so none of the lamps have had to be renewed during the two and a half years since the system was installed.

Each of the lamps is located in a cell one and a half inches square, and two inches deep, see Figure 2; these cells are made of poplar, one-eighth inch thick, and are all covered by a frosted glass door.

Printed over each compartment and arranged alphabetically are the names of the attending staff corresponding in each case with the same name and location on the switchboard at the front desk.

When an attending comes into the hospital he signs his name in a standard diary, indicating the hour of his arrival, and pushes the button that turns on the light in the compartment behind his name on the panel at the telephone board. This light burns continually as long as he remains in the hospital.

When he is ready to leave, he indicates the hour of his departure on the diary and pushes the button that turns his light out. The object in using the diary is to create a permanent record of each man's attendance, and to be able to state just when any particular attending left the hospital. A musolaphone is used as far as possible in locating the men in the hospital.

Fig. 1. The switchboard is located at the front desk in the main office.

Fig. 2. This device, located on the wall by the telephone switchboard, indicates by the light whether or not the physician is in the hospital.

HARDENING GAS TUBES BY AN EASY AND RAPID METHOD*

By SIDNEY H. LEVY, M.D., and HUBERT MANN, M.D., Mount Sinai Hospital, New York City.

At the present time there are three recognized methods of hardening gas tubes which have become too soft for use: first, tubes may be hardened by setting them aside and allowing them to rest for an indefinite period; second, by passing a weak current through them for several minutes, either through the true or accessory anode, until the tubes are hot; third, by repumping them at the factory. The first two methods are time consuming and unreliable, failing completely in the case of very soft tubes. The third method is time consuming, inconvenient, and expensive.

The possibility of hardening x-ray tubes rapidly and conveniently, by cooling the softening device with an ethyl-chloride spray or other means, suggested itself on theoretical grounds. The efficacy of the method has been demonstrated by the successful hardening of twenty-five different gas tubes.

The actual method of hardening the tube is as follows:

1. A current is passed through the tube until it becomes fairly hot.

2. The softening device of the x-ray tube is sprayed slowly with ethyl-chloride, from thirty to fifty grams is generally sufficient. During the spraying, a coating of snow and ice should collect on the glass bulb of the softening device. It is advisable to protect the bulb of the tube with a towel, exposing only the chamber containing the softening device.

3. Allow the tube to stand five minutes, then dry it thoroughly. An electric fan aids in cooling the softening device during the spraying, and also later, in drying the chamber containing the softening device.

4. Reheat the tube by passing the current through the anti-cathode or accessory anode. After this procedure it is generally found that the tube is harder than before, and becomes progressively harder for about twenty-four to forty-eight hours. Different tubes vary in the ease

*Abstract of article by Drs. Levy and Mann which appeared in the March issue of the Journal of Roentgenology.

with which they are hardened; some require only one treatment and other several repetitions. Once the spark gap has begun to increase, it is easy to increase the hardness of the tube to any desired degree by repetition of the above treatment.

As a result of our experiments with twenty-five gas tubes of several different types, we wish to emphasize several points which will be useful to anyone employing this procedure. It makes very little difference whether the asbestos packing in the softening device is in direct contact with the outer glass wall or is contained in a separate tube. In general, older and more highly seasoned tubes require more preliminary heating, and respond to treatment more slowly than do newer tubes. The reason for this is that the tube must be heated sufficiently to drive particles of gas from the metal parts and glass wall into the bulb, so as to allow this gas to be absorbed by the softening material. Several treatments may be necessary, but once the spark gap has begun to increase it is a simple matter to attain any degree of desired hardness. Frequently it will be found that tubes will show almost no change immediately after treatment, but become much harder from one to twenty-four hours after. If at the end of twelve to twenty-four hours the tube does not tend to become harder, another treatment is needed. Tubes hardened by this method will keep their vacuum and gap indefinitely as shown by their daily use in the x-ray laboratory of Mount Sinai Hospital, New York City. The tendency of these tubes upon standing is to become progressively harder.

In conclusion, we feel that both theoretical considerations and practical results justify us in stating that gas tubes containing some hygroscopic material, such as asbestos packing, can be hardened rapidly and conveniently by cooling the softening device by an ethyl-chloride spray.

A STERILIZER CONTROL THAT IS ABSOLUTE

The sterilization control is one phase of hospital activity that is not given the attention it warrants. All of us believe our sterilizers to be efficient, but we do not throw around its performance a check that will insure the elimination of all lapses either in equipment or in personal technic.

With a procedure such as the sterilization of supplies, upon which so much is dependent, no trouble or expense is too great to insure an absolute performance at all times.

There has been devised, and is now on the market, a sterilizer control that, according to the government tests is absolute. In order that hospital executives may have the benefit of these experiments, a complete copy of the government's report follows:

The United States Bureau of Standards, reporting to A. W. Diack, on the melting conditions of sterilizer controls, says:

"The following table gives the time required for complete fusion at different temperatures:"

Temperature in degrees Centigrade	Time required to fuse
118	25 to 30 minutes
120	10 to 12
122	6 to 8
123	5

Conversion of the above to

Degrees Fahrenheit	Gauge pressure in pounds
244.4	12.4
248	14.2
251.6	16

It must be kept in mind that the above relation of gauge pressure to temperature holds good only in the absence of air.

Therman death points of bacteria according to:

Muir & Ritchie, (Amer. ed., p. 32).

"One exposure of media to the temperature of *120 degrees C.* for *7 minutes* is sufficient to kill all organisms and spores."

Jordan, (6th ed., p. 26).

"A temperature of *120 degrees C.* is usually sufficient to sterilize completely all tubed media in *5 minutes.*"

"All air should be allowed to escape, as a mixture of steam and air does not reach the temperature indicated by the gauge."

Besson, (1914, French ed., p. 6).

"A duration of *20 minutes* in steam at *115 degrees C.* is sufficient to obtain complete sterilization."

Sternberg, (1901 ed., p. 158).

"Globig obtained a bacillus, the spores of which survived exposure for three-quarters of an hour in steam under pressure, at from 109 to 113 degrees C. They were destroyed, however, by exposure for *25 minutes* in steam at *113 to 116 degrees C.*"

Novy, (1889 ed., p. 165).

"Steam at *130 degrees C.*, under pressure, will destroy

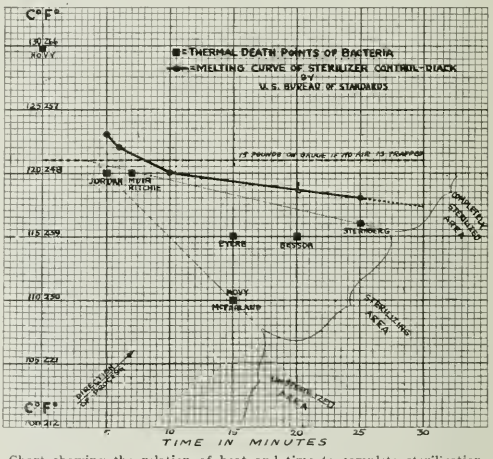


Chart showing the relation of heat and time to complete sterilization, in the presence of moisture.

instantaneously spores which are able to withstand 3 or 4 hours' exposure at 100 degrees C. A temperature of *110 degrees C.*, if allowed to act for *15 minutes*, will sterilize same."

McFarland, (9th ed., p. 174).

"Steam under pressure may be used to immediately destroy spores. The sterilization, to be complete, requires that the exposure shall be for *15 minutes* at *110 degrees C.*"

Eyre, (2nd ed., p. 36).

"Steam under pressure in sealed vessels at a temperature of *115 degrees C.* will destroy both vegetative and sporing forms of bacteria within *15 minutes.* If the temperature is increased to *120 degrees C.*, the same end is attained in *10 minutes.*"

The United States Government is having plans drawn for a hospital to be built at Paris Island, S. C.

TRY A GLASS COFFEE URN LINER

"Keep the coffee urn clean" has long been recognized as the first rule for making perfect coffee. The observance of this is made easy by a new glass urn liner which has recently been developed and is now being placed on the market. These glass urn liners have a smooth, flawless, hard, permanent, crystal surface that will not

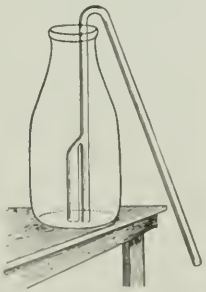
hold stains or dried on particles, while the impervious surface cannot absorb color or odor. The manufacturers claim that the new liner will stand an extremely hot temperature without breaking. In fact, a test occupying over a year's time has been most satisfactory.

The fact that these new liners are made entirely of glass permits them to be perfectly cleaned, and it is easy to see whether they are clean or not. Also, the objection frequently found in glazed surface liners—the cracking, crazing, or peeling off—is naturally absent. It would seem that this new liner will have a particularly attractive appeal to hospital executives on account of the perfect cleanliness that can be secured.

A SELF-STARTING SIPHON

There has recently been introduced on the market a self-starting siphon, possessing many hygienic advantages for the transfer of liquids.

This device is particularly adapted for the separation of the top milk or cream layer from the rest, in preparing modified milk for infant feeding. It is claimed that its use eliminates the danger of contaminating milk in rebottling, or in the use of various containers.



The operation is very simple. The shorter arm of the siphon is lowered to the bottom of the bottle full of milk, in which the cream and milk have separated into layers. The milk will at once begin to flow through the siphon tube. If the top milk is desired, the siphon may be withdrawn when the bottle of milk is half emptied. The milk left in the bottle contains all the cream. If a further separation of the milk and cream layers is desired, the siphon may be withdrawn when the cream line is reached, thus leaving the cream in the bottle.

NEW OPERATING ROOM LAMP RESEMBLES THOSE USED IN LIGHTHOUSES

There has recently been developed in France a new shadowless and concentrated light which is claimed to be particularly valuable for operating room use. The great problem in operating room lighting is to secure sufficient illumination, properly concentrated and without shadow. M. L. Verain, a French professor, has invented the new model lamp. The outfit consists of a gas filled high efficiency incandescent lamp placed in a circular lens of the same general design as lenses used in lighthouses. These lenses serve to project the rays of the light sideways,

where they come in contact with fifty mirrors arranged around the inside of a metal reflector bowl. These mirrors direct the light rays downward, where they form a circle of concentrated light, the diameter of the circle being dependent on the height at which the lamp is placed. As the light rays are reflected from the many mirrors the light secured on the operating table is always free from shadow.

SERVICE BUREAUS AT YOUR SERVICE

The Service Bureau on Dispensaries and Community Relations of the American Hospital Association, besides its general work of dispensing information along technical lines, is at present making a survey of the dental situation for parties desiring facts on this subject, and also a local survey of the hospital situation in Detroit. The Bureau is prepared to make local surveys of hospital or community relation conditions anywhere in the country at a minimum expense.

The Service Bureau on Hospital Social Service Work is now ready to make studies of hospital social work as conducted by any institution, and on the ground. All members of the Association are permitted to ask information and advice from the Bureau without expense.

MEETINGS, CONVENTIONS AND CONFERENCES

OHIO HOSPITAL EXECUTIVES AND NURSES HOLD JOINT MEETING IN CLEVELAND

HOSPITAL records, medical, administrative, and financial, held the center of attention at the opening session of the Seventh Annual Convention of the Ohio Hospital Association, which began its meetings at the Winton Hotel, Cleveland, on the afternoon of May 16, 1921.

Owing to the absence of Mr. P. W. Behrens, the president of the Association, Dr. A. C. Bachmeyer, first vice-president, presided, and read the president's address. In his address, Mr. Behrens dwelt upon the question of the shortage of nurses, and upon the necessity of having all of the hospitals of Ohio join the state Association and be represented at the annual conference. Mr. Behrens felt that the shortage of nurses, despite the fact that the state had been combed for the right type of girl to enter training, was due primarily to the long hours of service, and the necessity of carrying all their studies when off duty. He expressed his belief in the eight hour day as necessary for the health of the students and the success of training schools.

Urges Hospitals to Join State Association

Calling attention to the fact that 75 per cent of the hospital beds of Ohio were represented in the Ohio Hospital Association, and but 40 per cent of the hospitals, Mr. Behrens urged all hospitals in the state to join the Association, since only in this way could their united influence be used in furthering legislation helpful to the hospitals.

Following Mr. Behrens' address, Mr. F. E. Chapman made a brief informal report, as secretary. He stated that the Ohio Hospital Association had cooperated with the Ohio Public Health Federation in attacking obnoxious legislation. Owing to the introduction of a bill by the governor of the state, involving the reorganization of the state code, it was decided to refrain from introducing the proposed bill licensing hospitals in Ohio. Mr. Chapman felt that closer cooperation was needed on the part of members of the Association in order to present an undivided front, so far as hospital policies were concerned. He urged that the Association formulate its plans so that they would have the unqualified support of all the hospitals of the state, and that all the hospitals so conduct their own affairs as to play a telling part in carrying out these plans. He also urged the boards of trustees of hospitals to take a greater interest in their institutions.

Following Mr. Chapman's report, the session turned its attention to the subject of record keeping. This was introduced by Mr. Raymond F. Clapp, assistant director, Welfare Federation of Cleveland, who read a paper on "What Does Proper Recording of Hospital Performance Mean and What Are Its Benefits?" He said that there are three kinds of hospital records, case records, service records, and financial records of income and expense, but that he proposed to speak only of the second and third groups. The purposes for which these records may be kept are, first, self analysis of hospital performance, including the planning of regular work and the establishment of a proper basis of charge to beneficiaries; second, the securing of information on which to base appeals to contributors, and the accounting to the public for funds spent; third, the furnishing of material for publicity, both as to the activities of the hospital, and the general problem of disease prevention and cure. It is necessary, therefore, that accurate, complete records be kept both of receipts and expenditures of money, and performance of services.

Self Analysis Most Vital Use

The most vital use, in Mr. Clapp's opinion, to which records can be put, is that of self analysis. This will make possible intelligent action on present problems, and wise planning for the future, and it should show the strong and weak points in the hospital management. This can be done by having service expense tabulated by departments, preferably on a basis that is comparable with similar figures from other institutions, and from year to year in the same institution. Thus it may be determined if the hospital is increasing its service in proportion to the need of the hospital, and also if it is being run on a more or less efficient basis than in former years, or as compared with other institutions.

The recording of expense and amount of materials used will make possible a purchasing policy which will enable the institution to take advantage of seasonal price levels, and of special bargains.

Records Necessary in Fixing Charges

Expense accounting is necessary, also, if hospitals are going to accept the policy, which Cleveland has already recognized, that hospital rates should be based on the cost of the service rendered, and that persons financially able, should pay the full cost. Only with a careful expense account can the true basis be found.

For hospitals participating in community funds it is necessary to prepare a yearly budget, and other hospitals

would find it very beneficial. For this purpose records are indispensable. The budget should be used as a real working chart, and will show in advance necessary changes in financial policy.

Finally, Mr. Clapp emphasized the importance of records in the effort which every hospital wishes to make toward correcting the conditions which make disease possible.

Good Records

Dr. C. F. Holzer of Gallipolis introduced the discussion of this subject, speaking from the viewpoint of a small hospital. In reviewing the record system of his own institution, he brought out the fact that his institution kept service records of all departments in order to compare them with the expenses of these same departments. He maintained that the keeping of a storeroom and cost record system simplified purchasing in the small hospital, and expressed his belief in the possibility of a uniform type of hospital records, which would be applicable to all hospitals, irrespective of their size. He also maintained that the cost of keeping good records did not exceed the expenses that would be incurred as a result of keeping haphazard records.

Mr. H. J. Southmayd, of Columbus, chief of the bureau of hospitals of the State Department of Health, was scheduled to discuss Mr. Clapp's paper from the point of view of the department of health, but was unable to be present.

Dr. Warner Discusses State Associations

Dr. A. R. Warner, executive secretary of the American Hospital Association, who was to speak on the subject of "The Development of the American Hospital Association and the Geographic Sections," at the evening session, spoke at this session instead, and reviewed the growth of the organization of various state hospital associations, and the development of the idea of geographical sections of the American Hospital Association. He called attention to the fact that four state associations had now become geographical sections of the American Hospital Association, and that several other states were now considering the organization of associations with a view to becoming geographical sections. Of these states, the most notable were Missouri and New York. Massachusetts is also considering the question, but there is doubt as to whether is would be more desirable to form a Massachusetts state hospital association or a New England state hospital association. In closing his address, Dr. Warner called attention to the bills that had been introduced into the legislatures of a number of states, whose purpose was to force all hospitals that were free from taxation to admit all physicians licensed by the state to practice in the hospitals on an equal basis, and appealed to the Association to prepare itself to fight injurious bills such as this, which sought to undermine hospital progress and efficiency. To this end he felt that it was necessary for the hospitals to work in harmony with their medical staffs.

Father M. F. Griffin spoke briefly on the subject of "The Trained and the Untrained Anesthetist." He maintained that this was essentially a hospital question, and as such, hospitals ought to be vitally interested in it, and owed it to themselves to make plans that would protect their interests along this line. He called attention to the bill that had just been defeated in the Ohio Legislature, making the administration of anesthetics a medical practice. This would eliminate all nurse anesthetists. Father Griffin held that the administration of anesthetics is a specialty, but that it is not the practice of medicine, and that its administration does not call for a four year medical course. He did maintain, however, that anesthetists should have some special training. He felt that the hospitals should take the initiative in shaping whatever legislation was necessary along these lines to protect their interests, and moved that a committee be appointed by the chairman to report at the final session of the Convention on the subject of the trained and untrained anesthetist. This motion was carried and the meeting adjourned.

Dr. Smith Speaks on Minimum Standard

At the evening session on Monday, John R. McQuigg, Colonel of the Reorganized Regiment, and State Commander of the American Legion of Ohio, spoke on "The Need of Hospitalization for Service Men." As Judge Harold M. Stephens, director of the American College of Surgeons, Chicago, who was to have spoken on "The Application of the Minimum Standard and Plans for the Future," was unable to be present, Dr. James L. Smith, of Chicago, spoke in his stead.

The announcement at this session of the death of Mr. H. J. Johnson, one of the older representatives of the American Laundry Machinery Company, well known to hospital executives, cast a spell of sadness over the convention. A resolution was passed, expressing the Association's sense of its loss at his death.

The morning session on Tuesday, May 17, consisted of a round table on administrative problems. The sections were: Purchasing, conducted by Guy J. Clark, Cleveland; Housekeeping, by Miss Elsie Druggan, Mansfield; Accounting and Records, by C. B. Hildreth, Cleveland; Mechanical and Laundry; and Dietary, conducted by Miss Mary A. Jamieson, Columbus.

Tuesday afternoon's session was devoted to a discussion of the general subject of hospital social service. Miss Ida M. Cannon, chief of social service, Massachusetts General Hospital, Boston, was to have read a paper on "The Interpretation of Hospital Social Service," but she was unable to attend the meeting. Her place was admirably filled by Mrs. Bess Lynde Russell, director of social service, Michael Reese Hospital and Dispensary, Chicago. Mrs. Russell called attention to the fact that organized hospital social service was not yet fifteen years old, and that in this period social service departments having from one to thirty workers, had been established in three hundred out of a total of three thousand public service hospitals.

Social Service Must Assist Medical

Mrs. Russell endeavored to define hospital social service by a process of negation. She said it was not simply kindness, not the work of a public health nurse, nor managing a clinic; that it was not medical follow-up work, nor any old job that needed to be done; nor was it clearing hospital beds of chronic patients; but that its primary basis was to assist in medical service.

Mrs. Russell indicated that there were three kinds of medical social service work: first, intensive case work such as case work with patients suffering from tuberculosis, cardiac cases and the handicapped; second, steering work; and third, administrative work. In doing these three types of work she felt that the medical social service department should be regarded as an integral part of the hospital, and should have direct relationship with the superintendent.

In speaking of the training of medical social service workers, Mrs. Russell contended that a strong personality plus a wide cultural background were fundamental. If

she is to render efficient service, a social worker must like people, must have a power of persuasion, and a logical mind.

Must Get Behind Hospital Programs

In discussing Mrs. Russell's paper, Miss Malvina Friedman, director of social service, Mount Sinai Hospital, Cleveland, made the point that medical social workers must get behind the broad programs of the hospital, including legislative programs, that will give the medical social workers the facilities and the tools they need in order to carry out the directions of the doctors to their finality.

The committee appointed to consider the question of the trained and untrained anesthetist in Ohio rendered a report indicating that it was the sense of the committee that inasmuch as the legal aspects of this problem had been settled at this time by the Legislature of Ohio, and inasmuch as important plans are being formulated by other groups for the handling of the problem, the committee recommended that it be continued, with instructions to cooperate with said groups, and report to the board of trustees from time to time and at the next annual convention.

After a rather prolonged and animated discussion, the motion was carried that the Association reaffirm the principle of cost for service for industrial cases treated in the hospitals of the state.

A dinner was scheduled for Tuesday evening, at which F. W. Ramsey, president of the Cleveland Metal Products Company, was to speak on "The Spirit of Service," but as only thirty delegates indicated their intention of attending, it was called off.

To Prepare Brief in Legal Case

At the beginning of Wednesday morning's session, the routine business of the Association was transacted. A letter was read from Mr. C. A. Collins, the attorney for the Flower Hospital of Toledo, asking the Ohio Hospital Association to submit a brief in the case of R. O. A. Taylor versus the Flower Hospital, in which the Flower Hospital was being sued for damages due to the accidental burning of a patient by a hot water bottle. A resolution was thereupon passed instructing the board of trustees of the Association to accept the invitation to prepare this brief. In discussing this motion, Father Griffin took occasion to speak on the present status of the Association, and contended that it must become something more than a mere lyceum, something more than an annual gathering; it must organize to do something definite for its members, otherwise its existence would be jeopardized.

Resolutions were passed, commending Mr. Chapman for his efficient services during the past year as secretary, and expressing the Association's appreciation of the splendid cooperation given it by various state officials, including the officers of the Bureau of Hospitals of the State Department of Health.

A resolution was also passed reaffirming the action of the board of trustees in protesting against the methods pursued by the American Medical Association in listing the hospitals in Ohio eligible for the training of interns.

Specialization More Marked than Ever Before

Dr. A. C. Bachmeyer, superintendent of the Cincinnati General Hospital, in speaking on "The Necessity for Correlated Effort in Hospital Administration," began by reviewing the great advances which have been made in the past century, especially in the world of science. And, as a necessary correlation with the accumulation of this vast mass of knowledge, has come specialization. The disadvantage of this tendency in Dr. Bachmeyer's opinion, is the fact that the specialist is likely to become egotistical and narrow-minded, putting too much emphasis on his own branch of science.

A result of this specialization is the organization of many societies. They have in most instances developed into local, state, sectional, and national organizations. Each organization is likely to develop its own program without regard to the action of the other societies, and in this way is brought about much overlapping and waste of effort. Dr. Bachmeyer aptly pictured the situation, as a circle formed by a large number of specialists and hospital experts, but all are facing out. Each is looking at his own particular objective, instead of their all turning around and concentrating on a common purpose.

Not the least among the lessons taught by the war was that of "teamwork," and that must be the watchword in the future. The American Conference on Hospital Service was founded in an effort to furnish a medium for teamwork between the various large organizations; the Ohio Public Health Association has the same mission to fulfill among the agencies of the state of Ohio.

Institutions Must Have Teamwork

But these societies are founded upon the various institutions, and it is of vital importance that each institution develop a harmonious organization within itself. Frequent conferences of department heads of the hospitals are an important method of promoting this organization. Here, carefully excluding all petty jealousies, is the chance to "face inward."

In discussing Dr. Bachmeyer's paper, Miss Grace E. Allison, Lakeside Hospital, Cleveland, agreed that there was great need for more cooperation in the hospital. This need, she thought, was due to a lack of common understanding. To meet it she suggested monthly general conference meetings of representatives of the various departments, at which various phases of the hospital work would be discussed, and also regular weekly meetings of heads of departments, for the discussion of general problems. To these meetings heads of departments should come with an open mind, avoid personalities, and regard the welfare of the institution as the main consideration.

Discuss Correlated Problems

The Wednesday afternoon session was devoted to a round table on correlated hospital and nursing problems, led by Dr. E. R. Crew, superintendent, Miami Valley Hospital, Dayton, and Miss Daisy Kingston, City Hospital, Fremont. Various phases of the nurses' recruiting campaign were discussed. One point that was made clear was that this campaign could not be successful unless the interest and approval of mothers was secured; it was not sufficient merely to interest the girls in taking up this profession.

Miss Thatcher indicated that this coming summer a number of high school students would enter the hospital during the vacation period to supplement the work of the nurses. This will give them an opportunity to gain some knowledge of nursing, and enable them to make a wise decision as to whether they wish to enter the nursing profession.

In a discussion of the cafeteria system of serving meals for nurses, it was evident that the hospitals wished to get away from this system as quickly as possible.

The following officers of the Association were elected: President, Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, Cincinnati; first vice-president, H.

G. Yearick, superintendent, Akron City Hospital, Akron; second vice-president, Miss Daisy Kingston, superintendent, City Hospital, Fremont; treasurer, Dr. E. R. Crew, superintendent, Miami Valley Hospital, Dayton. Mr. P. W. Behrens, superintendent, Toledo General Hospital, and Miss Elsie Druggan, superintendent, Mansfield General Hospital, were elected to the executive committee.

Nursing Problems Occupy Last Two Days

The last two days of the convention were devoted to the program of the nursing associations, the Ohio Nurses Association, and the Ohio League of Nursing Education. Papers were read on the relation between the medical and nursing professions, the relation of a school of nursing to the hospital, and the relation of the nurse to the public. Lillian Hanford, R.N., principal of Miami Valley Hospital School for Nurses, Dayton, spoke on "Health and Recreation of Student Nurses"; and Ida May Hickox, R.N., Chief Nurse Examiner, Ohio, on "State Board Examination." There were round tables on the questions of school nursing in urban and rural districts, and industrial nursing; also under the public health section, round tables on nutritional classes for school nurses, and the question of tuberculosis nursing.

ORGANIZE INDIANA STATE HOSPITAL ASSOCIATION

THE Indiana Hospital Association was organized at a meeting held at LaFayette, Ind., April 27-28, 1921. The constitution and by-laws which were accepted were very similar to those of the Ohio Hospital Association, except that staff members of hospitals were made active members in the Association, as in the American Hospital Association. A resolution was passed applying for recognition as a geographical section of the American Hospital Association.

The official registration for the business meeting was forty-two, and the dinner in the evening was attended by about one hundred and fifty hospital executives, staff members, and their wives.

The most striking point about the meeting was the interest of members of the professional staffs. They were present from all parts of the state, and seemed to realize that they had a vital interest in the progress and standing of the hospitals of the state. This attitude, which is not often found to such a marked degree among medical men, is strictly in accord with the constitution and policies of the American Hospital Association.

After the organization and election of officers, a resolution was adopted applying for membership as a geographical section of the American Hospital Association. An invocation was given by Dr. Thomas E. Williams, followed by addresses of welcome.

In his address, Dr. Warner, executive secretary of the American Hospital Association, outlined the aims of the Association, and explained the method of state associations becoming geographical sections. Dr. Smith, representing the American College of Surgeons, spoke on the program of standardization of the College, and explained its advantages. Dr. Wetherill, in speaking on standardization as it affected St. Elizabeth's Hospital, LaFayette, outlined a system of grading records which has worked very well in this institution.

At the afternoon session, Dr. Woods, in his talk on professional efficiency, emphasized the importance of the relation to the patient of everyone connected with the institution. Each member of the hospital personnel, he pointed out, was taken into the organization on account of his fitness for his particular part in caring for the patient.

Miss Matthews, department of home economics, Purdue University, brought out the increasing recognition by hospitals of the value of the dietitian. She spoke of the rapid growth in the field of nutrition, and the fact that the successful dietitian must keep in touch with new developments. Miss Matthews felt that three or four months' work as a student dietitian would be enough practical experience, after a full course in home economics, to qualify the average girl for executive work in a hospital. She accounted for the shortage of workers by the lowness of the remuneration. She felt that the dietitian should have an adequate salary, and be ranked with the other executives of the hospital.

Dr. George F. Keiper, newly elected president of the Indiana Hospital Association, is eye and ear surgeon of St. Elizabeth Hospital, the Lafayette Home Hospital, St. Joseph's Orphanage, the Tippecanoe County Children's Home, St. Anthony's Home for the Aged, The Indiana State Soldiers' Home, all of Lafayette, Ind. Dr. Keiper is also ex-president of the Indiana State Medical Association, and an ex-vice-president of the American Medical Association.

The program of the meeting was as follows:

Wednesday, April 27, 1921

9:00 a. m.—Registration and Enrollment.

10:00 a. m.—Invocation, Thomas E. Williams, M.D., Trinity Church, LaFayette.

10:05 a. m.—Address of Welcome, Mayor George R. Durgan.

10:10 a. m.—Address of Welcome, Tippecanoe County Medical Society, President D. C. McClelland, M.D.

10:15 a. m.—Address of Welcome, Behalf Purdue University, President W. E. Stone.

10:20 a. m.—Response, A. R. Warner, Executive Secretary, American Hospital Association, Chicago, Ill.

10:40 a. m.—Temporary Organization; Appointment of Committee on Constitution and By-Laws.

10:50 a. m.—Hospital Standardization, J. L. Smith, M.D., representing the American College of Surgeons, Chicago, Ill.

11:30 a. m.—Grading Hospital Charts, R. B. Wetherill, M.D., LaFayette.

2:00 p. m.—Report of Committee on Constitution and By-Laws. Election of Officers.

2:30 p. m.—Hospital Construction, Charles Nichol, LaFayette, Ind.

3:00 p. m.—Efficiency in the Hospital, C. S. Woods, M.D., Indianapolis, Ind.

3:30 p. m.—Dietetics, Professor Mary L. Matthews, Purdue University.

4:30 p. m.—Visit Hospitals and, if possible, Purdue University.

6:45 p. m.—Dinner, Hotel Fowler. Compliments of Tippecanoe County Medical Society.

On April 28, unfinished business was taken up.

The following officers were elected: president, Dr. George F. Keiper, LaFayette; first vice-president, Miss Clara B. Pound, Richmond; second vice-president, Dr. W. O. Cross, Fort Wayne; secretary, Miss Anna Mendendorp, LaFayette; treasurer, Mrs. Ethel P. Clark, Indianapolis; trustees, for one year, Dr. A. M. Hayden, Evansville; for two years, Dr. C. S. Woods, Indianapolis; for three years, Dr. H. A. Duemling, Fort Wayne; for four years, Dr. T. B. Templin, Gary; for five years, Dr. Charles Combs, Terre Haute.

CATHOLIC HOSPITAL ASSOCIATION PLANS PROGRAM

The Catholic Hospital Association has announced a tentative program for its annual meeting in St. Paul, Minn., June 21-24, 1921. There will be papers on many interesting subjects, such as: The religious aspect of Sisters' hospitals, the ethical phase of Sisters' hospitals, and the scientific management of Sisters' hospitals. On the second day, there will be, among others, papers on local and general anesthesia, and a report of the nursing committee appointed at the 1920 convention. This report will be awaited with much interest, and a general discussion will follow.

TENTATIVE PROGRAM

1921 Convention of the Catholic Hospital Association of the U. S. and Canada.

St. Thomas College, St. Paul, Minn., June 21, 22, 23, 24, 1921.

Tuesday, June 21—Morning Session.

9:00 a. m. Mass and Sermon.
11:00. Opening of the convention.
11:00 to 12:00. Address of welcome, and other introductory addresses.

Afternoon Session.

2:00 p. m. President's address.
2:30. Paper—"The Religious Aspect of Sisters' Hospitals."
2:45. Paper—"The Ethical Phase of Sisters' Hospitals."
3:00. Paper—"The Scientific Spirit of Sisters' Hospitals."
3:15. Paper—"Principles in the Control and Management of Sisters' Hospitals."
3:30. General discussion of first day's transactions.

Reverand Charles B. Moulinier, S.J., re-elected president of the Catholic Hospital Association.

Wednesday, June 22—Morning Session.

10:00 a. m. Paper—"Local Anesthesia."
10:30. Paper—"General Anesthesia."
10:45. Paper—"The Importance of the Internist's Position in the Hospital, from the Standpoint of the Surgeon."
11:00. General discussion.

Afternoon Session.

2:00 p. m. Report of nursing committee appointed at 1920 convention.
2:30. General discussion of this report.
3:45. Paper—"Retreats for Nurses."

Night Meetings—Doctors.
St. Paul Hotel.

8:00 p. m. Description and demonstration of a typical staff meeting.
General discussion.

For Sisters.
Auditorium of St. Thomas College.

7:30 p. m. Papers and discussions on problems of particular interest to the Sisters.

Thursday, June 23.
Conferences.

10:00 a. m. to 12:00 noon, 2:00 p. m. to 4:00 p. m., the following conferences will be held:

1. Mother Provincial and Superior, and superintendents.
2. Training school and supervisors of nurses.
3. Heads of floors.
4. Operating room nurses.
5. Anesthetists.
6. Laboratory workers.
7. Dietitians.
8. Supervisors of records.
9. Hospital social service workers.
10. Superintendents of dispensaries.
11. Doctors.
12. Graduate nurses.
13. Diocesan directors.
14. Chaplains, retreat masters, and sodality directors.

Night Meetings—Doctors.
St. Paul Hotel.

8:00 p. m. Paper—"The Practical Value of the Electrocardiograph in the Routine of Hospital."
Paper—"Basal Metabolism."
Paper—"Physiotherapy in the Hospital."

For Sisters.
Auditorium of St. Thomas College.

7:30 p. m. Papers and discussions on problems of particular interest to the Sisters.

Friday, June 24—Morning Session.

10:00 a. m. to 12:00 noon. Reports of the transactions of the Thursday conference.

Afternoon Session.

2:00 p. m. Reports of the officers.
Reports of the various committees.
Election of officers for the year 1921-1922.
3:00. Convention adjourned.
Meeting of the newly elected executive board immediately following the adjournment of the convention.

MICHIGAN HOSPITAL ASSOCIATION TO HAVE VALUABLE MEETING

The Michigan Hospital Association at its meeting on June 7 and 8, at Ann Arbor, will hear several authorities in the hospital field. Among them are Professor Hugh Cabot, of the University of Michigan Medical School,

Christopher G. Parnall, M.D., Medical Superintendent and Director, University Hospital, Ann Arbor, Mich., president of the Michigan Hospital Association.

on "The Avoidance of Psychological Damage in the Care of Hospital Patients"; and Mr. Frank E. Chapman, of Cleveland, Ohio, on "The Results to Date of the Cleveland Hospital Survey."

The entire program will be as follows:

Tuesday, June 7, 1921
Afternoon Session—2:00 p. m.

"The Hospital and the World's Life," Rev. W. M. Puffer, district superintendent of M. E. Church, member of board of trustees, Bronson Hospital, Kalamazoo, Mich.

"The Avoidance of Psychological Damage in the Care of Hospital Patients," Hugh Cabot, M. D., professor of surgery, Medical School, University of Michigan, Ann Arbor, Mich.

"Standardization from the Standpoint of the Small Hospital," Rev. Father M. P. Bourke, superintendent of Catholic hospitals in Michigan.

Evening Session—8:00 p. m.

Musical Program, University School of Music.

"The Results to Date of the Cleveland Hospital Survey," Frank E. Chapman, director, Mt. Sinai Hospital, Cleveland, Ohio.

Address—Marion L. Burton, president of the University of Michigan. (This has not been definitely decided.)

Wednesday, June 8, 1921
Morning Session—9:00 p. m.

"The Need for Hospital Facilities for the Care of Cases of Communicable Disease," W. J. V. Deacon, M.D., epidemiologist, State Department of Health, Lansing, Mich.

Round Table Discussion, in charge of W. L. Babcock, M.D., superintendent, Grace Hospital, Detroit, Mich.

Inspection of University Hospitals—Wednesday afternoon, June 8.

NORTH CAROLINA HOSPITAL ASSOCIATION DISCUSSES HEALTH PROBLEMS

The North Carolina Hospital Association held its third annual meeting at Pinehurst, April 26, 1921. Among the discussions were: "Development of Public Health Nursing and Cooperation with the Local Hospital," by Miss Columbia Mund, Consolidated Boards of Health, City of Wilmington and New Hanover County, Wilmington, N. C.; "Some of the Problems Confronting the Future Semi-Private Hospital," by Dr. J. F. Highsmith, Highsmith Hospital, Dix Hill, Raleigh, N. C.; "The Value of the Small Hospital to the Community," by Mrs. Walter Hughson, general manager, Grace Hospital, Morganton, N. C.

The following officers were elected: President, Dr. John T. Burrus, High Point; first vice-president, Dr. Moir S. Martin, Mount Airy; second vice-president, Dr. B. C. Willis, Rocky Mount; third vice-president, Miss Virginia McKay, Wilmington; present secretary, Dr. John Q. Myers, Charlotte, to be continued.

Executive committee: Dr. J. F. Highsmith, Fayetteville; Dr. J. M. Parrott, Kinston; Dr. John W. Long, Greensboro.

Delegates to state nurses' association: Dr. J. R. Alexander, Charlotte; Dr. L. B. McBrayer; Dr. E. T. Dickinson, Wilson; Dr. L. E. Farthing, Wilmington.

Committee to consider general nursing problems to meet with similar committees from nursing associations: Dr. J. F. Highsmith, Fayetteville; Dr. J. P. Munroe, Charlotte; Dr. John W. Long, Greensboro; Dr. J. M. Parrott, Kinston.

CONSIDER NEW ENGLAND HOSPITAL ASSOCIATION

A meeting of the executive committee of the Connecticut Hospital Association was held in New Haven on April 20, for the purpose of discussing the advisability of forming a New England Hospital Association to include all the New England states. Massachusetts is considering the formation of a hospital association, but is hesitating because it is felt that an association of all the New England states is the logical one to be formed.

INDIANA CATHOLIC HOSPITALS ORGANIZE

The Indiana Conference of the Catholic Hospital Association was organized at a meeting of the twenty or more Catholic hospitals of that state, at LaFayette, on April 28 and 29. Officers were elected as follows: President, Mother Josepha, St. Elizabeth's Hospital, LaFayette; first vice-president, Sister M. Catherine, St. Joseph's Hospital, Fort Wayne; second vice-president, Sister M. Louis, St. John's Hospital, Anderson; third vice-president, Sister M. Joseph, St. Vincent's Hospital, Indianapolis; secretary-treasurer, Sister M. Columba, St. Joseph's Hospital, Mishawaka. Members of the executive committee are: Sister M. Berchmans, Good Samaritan Hospital, Kokomo; Sister M. Gabriel, Wabash Hospital, Peru; Sister M. Sylvia, Sacred Heart Hospital, Garrett; and diocesan directors.

AMERICAN MEDICAL ASSOCIATION MEETS

The seventy-second annual session of the American Medical Association will be held in Boston, Mass., June 6-10, 1921. The Scientific Assembly of the Association will open with the general meeting on Tuesday morning, June 7; the sections will meet Wednesday, Thursday, and Friday, June 8, 9, and 10.

The opening meeting will be called to order by the president, William C. Braisted, Washington, D. C. After an invocation by the Rev. George A. Gordon, D.D., Boston, there will be an address of welcome by the Honorable Channing H. Cox, Governor of Massachusetts, and the Honorable Andrew J. Peters, Mayor of Boston. The president-elect of the Association, Hubert Work, Pueblo, Colo., will be introduced and installed, and will give an address.

Other organizations which have announced that they will hold meetings in or near Boston during the days immediately preceding or following those on which the Scientific Assembly will meet, are: Medical Veterans of the World War; American Association for Thoracic Surgery; American Association of Anesthetists; American Climatological and Clinical Association; American Dermatological Association; American Gastro-Enterological Association; American Gynecological Society; American Medico-Psychological Association; American Ophthalmological Society; American Orthopedic Association, American Pediatric Society; American Proctologic Society; American Radium Society, Association for the Study of Internal Secretions; Conference of State and Provincial Health Authorities; and the Radiological Society of North America. The Association of Military Surgeons of the United States will meet June 2-4, in the Swiss Room of the Copley-Plaza Hotel. The Medical Women's National Association will meet, June 11, at the New England Women's Club, 585 Boylston Street.

HOPE TO COMPLETE HOSPITAL BY 1925

It is announced that although all possible speed will be made in the erection of the huge $15,000,000 hospital which is to be built by Columbia University and Presbyterian Hospital, New York City, it will probably not be completed until 1925. Colonel William Barclay Parsons, chairman of the board of trustees of Columbia University, is of the opinion that the cooperation of the university and the hospital in building this institution is the biggest event ever known in medical history. Dr. William Walker Palmer, an associate professor in the College of Physicians and Surgeons until he joined the staff of Johns Hopkins University two years ago, is to be the new professor of medicine in the College of Physicians and Surgeons, and the chief of the medical service in Presbyterian Hospital.

MAKES GIFT TO SETTLEMENT

Mrs. Jacob H. Schiff has given $300,000 in memory of her husband, for the establishment of a central administration building for the Visiting Nurse Service, for the use of the Henry Street Settlement. Mr. Schiff aided in starting the visiting nurse service twenty-eight years ago. The new building will be at Nos. 97 and 99 Park Avenue. Mrs. Schiff's gift will provide for the complete equipment of the building, which, besides being used for administration purposes, will also serve as a training school for graduate and undergraduate public health nurses. A cafeteria, demonstration rooms, classrooms, and laboratories will also be provided. Provision will be made for living quarters for visitors from foreign countries who come here to study the visiting nurse service work in this city.

DR. SHUTT RESIGNS AS HOSPITAL COMMISSIONER

Dr. Cleveland H. Shutt, who has been hospital commissioner for the city of St. Louis, Mo., since 1911, has tendered his resignation. Dr. Shutt's health was impaired during the war and the influenza epidemic which followed, and he wishes to build up a private practice. As Dr. Shutt has been in the service of the city for sixteen years, he will wish to keep in touch with the city institutions, and serve them in any way that is possible in his private capacity.

PLANS FOR COMMUNITY HOSPITALS

One of the things touched upon in an address delivered before the Colorado State Medical Society, by Dr. Victor C. Vaughan, was the fact, which he says is recognized by all of us, that we as a nation are becoming too urbanized. But one of the most valid inducements which leads a young man to the city is the better protection that he finds there against infection, and the better treatment that he can secure if he becomes infected. Dr. Vaughan proposes that a model bill be framed for submission to the legislatures of the several states at their next session; a bill which would provide for a hospital in every community. It should be an enabling act, permitting any county or section of a county to constitute itself into a health center, and build a community hospital. The control of such a hospital should be under local direction, but with state supervision, so that a certain standard might be maintained. There should be at least one bed in the hospital for every district, and the salaries of the permanent staff should be paid by taxation. A part of this tax should fall upon the state at large, another portion falling on the people of the community concerned. The hospital should consist of several units: (1) a general hospital; (2) a tuberculosis pavilion; (3) an infectious pavilion; (4) a laboratory section; (5) a home for nurses. The staff should consist of (1) a commissioner of health of the community, who would also be director of the hospital and laboratories; (2) a surgeon; (3) an internist; (4) a laboratory man; (5) a certain number of trained nurses.

There would be in the hospital a small lying-in room, and x-ray facilities. This institution would be at the service of the people and the practitioners of the community. The local board having charge of the hospital would assess patients according to their ability to pay. Dr. Vaughan believes that the time will come when every community will have a diagnostic laboratory, connected with a hospital which is thoroughly equipped in every respect, where any citizen in the community may come for examination and treatment.

VENEREAL DISEASES AND THE HOSPITAL

Conducted by ALEC N. THOMSON, M.D.
Director, Department of Medical Activities
The American Social Hygiene Association, 105 W. Fortieth St.,
New York City

CHANGE METHOD OF REPORTING SYPHILIS DEATHS

The third conference for the revision of the international list of causes of death, held in Paris during October, 1920, decided that for the ensuing decade reports of deaths caused by complications or later stages of localized syphilis should be classified under titles for diseases of the various organs in which the syphilitic lesion is manifest. If American registration offices decide to adhere strictly to the requirements of the revised list, it will be necessary to classify under "diseases of the brain" every report of cerebral syphilis; under "cirrhosis of the liver" every report of syphilitic cirrhosis; and under "diseases of the respiratory system" fatal cases of syphilitic infection of the trachea, bronchi, or lungs.

For many years, all syphilis, whether localized or not, has been classified as syphilis. Under the new practice, it will not be possible to ascertain the total number of deaths reported as due to this disease unless registrars show separately for each of these scattered titles in the international list the number of syphilis deaths included. This scattering of syphilis entries over many titles of the international list will involve much labor for the registrar, and for the person consulting the reports for material comparable with the statistics of total syphilis mortality in past years.

The decision of the international conference on this point was made over the earnest protest of the American delegation, who had the support of the delegates of several other countries. If the Manual of the International List, based upon this third revision, is to be used by American registrars strictly in accordance with the practice prescribed therein, the total mortality from syphilis can be determined only if suitable sub-groups are arranged for the several titles receiving these new entries. It is much to be hoped that health officers and registrars will keep this requirement in mind and make possible a complete count of all the deaths due to syphilis that are reported to them.—*Statistical Bulletin*, Vol. 11, No. 2, February, 1921.

PHILADELPHIA'S METHOD OF VENEREAL DISEASE CONTROL

The *Monthly Bulletin* of the Department of Public Health of the City of Philadelphia, for March, 1921, outlines control of venereal disease in Philadelphia under the two general headings of routine and special procedure. The hospital or dispensary that handles patients suffering from gonorrhea and syphilis must out of necessity comply with the local rules and regulations. Unfortunately, not all institutions are complying with the necessary regulations of the health authorities. "We did not know" is often the excuse. It would be well for every hospital, dispensary, and private practitioner to ascertain the method of procedure in the community.

For comparison, the Philadelphia outline is as follows:

OUTLINE OF VENEREAL DISEASE CONTROL

By Dr. Howard J. Fretz, *Monthly Bulletin* of the Department of Public Health of the City of Philadelphia, March, 1921.

A. Routine Procedure:
   1. Physician reports case to health department.
      a. Serial number.
      b. Name and address.
   2. Physician gives patient educational booklet embodying venereal disease regulations.
   3. Change of physician by infectious patient reported to previous physician by present physician.
   4. Failure of infectious patient to continue treatment or to properly conduct himself reported to health department.
   5. Health department visits patient and insists on renewed treatment by:
      a. Own physician.
      b. Other.
      c. Venereal disease clinic.
   6. Refusal to renew treatment results in:
      a. Placarding of premises.
      b. Removal to hospital.

B. Special.
   1. Suspicious cases investigated by health department.
      a. Compulsory medical examination for suspected infectious cases not under legitimate control.
      b. Refusal of medical examination results in quarantine of premises.
   2. Prostitutes and allied misdemeanors under jurisdiction of municipal court.
      a. Prostitutes and associates arrested, brought before misdemeanor branch and continued for medical, including mental examination, and specimen findings.
      b. Defendants with positive laboratory findings have sentences deferred and are committed to detention home, Gynecean Hospital, Philadelphia General Hospital, or House of Correction, for medical treatment.
      c. Final disposition varies with case-type.
   1. Discharged under probation.
   2. Paroled to venereal disease clinic.
   3. Committed to industrial school farms, psychopathic institutions, reformatories, or houses of correction.

"Caring for the sick calls naturally for a consideration of social sympathy made useful and practical through training."—Aileen Cleveland Higgins.

Hints to Hospital Superintendents

CEMENTS FOR EMERGENCY REPAIR

Hospital superintendents, particularly those connected with outlying institutions are frequently called upon to make emergency repairs and the following suggestions of "home-made" cements will be of value:

Freshly prepared curd from soured skim milk is mixed intimately with one-fourth its bulk of lime, which has been slaked by adding just enough water to cause it to fall to a powder. This cement, which is good for wood, marble, metals, and glass, should be used immediately as it soon sets to a hard mass. When used on marble or wood, it is advisable to first paint the surface with a solution of casein (curd) in borax solution or ammonia, to fill the pores.

Powdered and sifted quicklime mixed to a paste with white of egg quickly sets to a hard cement that can be used on ivory, marble, glass, porcelain, etc.

A waterproof cement for cisterns, casks, etc., is made from glue, mixed with one-fourth its weight each of boiled linseed oil and red ocher. The glue is soaked and melted in as little water as possible and the other ingredients are then thoroughly mixed in. The cement should set in two or three days.

Powdered whiting or air-slaked lime mixed with hot glue will adhere to wood and metals. Liquid glue containing acid should not be used.

Litharge and glycerine mixed to a paste form a cement that adheres strongly to metals, glass, etc. It is not softened by heat and resists the action of water.

Beeswax and rosin melted together in the proper proportion for the desired consistency form a cement that will adhere strongly if applied to warm metal or glass surfaces. It may be mixed with whiting, etc., to give it more body.

Shoemakers' wax and shellac melted together at not too high a temperature give a more tenacious cement than the preceding. The metal or glass to be cemented must be hot enough to just melt the cement. By changing the amount of shellac from one-half to two and one-half or three times the weight of the wax the resulting cement will vary from moderately ductile to quite hard and brittle form.

An excellent aquarium cement is made by mixing ten parts each by volume of litharge, fine sand, and plaster of Paris and one part of powdered rosin with enough boiled linseed oil to make the mixture somewhat stiffer than ordinary putty. The aquarium can be filled with water in three or four days, even though the cement may not have set hard.

Rubber cement is made by dissolving crude rubber in gasoline or benzene (benzol). Other ingredients, such as dry mineral fillers, gums, or resins, are sometimes added to adapt the cement for particular purposes.

In cementing two rubber surfaces together they should first be thoroughly cleaned with gasoline. This is absolutely essential to secure satisfactory adhesion. If the surfaces of the rubber are very smooth, they should be roughened slightly with sand-paper and again cleaned. A small quantity of cement is now spread over each surface, and after allowing a few minutes for the major part of the solvent to evaporate the two surfaces are stuck together and kept under pressure for several hours to give the solvent time to evaporate completely.

HOW TO CLEAN STEEL KNIVES

The proper care of steel cutlery has long been a source of worry to the hospital executive. An official bulletin issued by the American Cutlery Bureau of Information gives some excellent suggestions as to its proper care.

All tarnishing of steel knives can be avoided if the knives are cleaned immediately after use. The chemical action of the acids which causes tarnishing requires a certain time to accomplish its purpose, and the sooner it is interrupted the better it is for the future use of the knife. Do not leave steel knives lying uncleaned overnight. Rinse the blade carefully in hot water after use and wipe it dry with a clean cloth. This will destroy the acids. If there is time, polish the blade with a fine powder polish. The polish upon the blade of a good steel knife is produced by very rapid friction, which makes the surface of the blade absolutely smooth until it shines as does the polish on furniture or glass. Acids destroy the smoothness of the surface and eat not only into the polish, but create small indentures in which food will decompose and help to make the tarnishing of the blade permanent. Many machines and appliances for polishing knives are sold. The best one, however, is an ordinary bottle cork and some fine polishing powder. No appliance can replace the sensitiveness of the hand, and a few rubbings with the cork will not only remove all the uncleanliness from the blade, but also renew the polish which is its natural protector. Before polishing rinse the blade thoroughly with warm water and dry it. After polishing a renewed rinsing and careful drying will remove the remains of the polishing powder.

INSTITUTE FOR NUTRITION WORKERS

An institute for the training of nutrition workers is to be conducted in Chicago from June 13 to 28, under the auspices of the Elizabeth McCormick Memorial Fund. Dr. William R. P. Emerson of Boston will give the lectures and class demonstrations, assisted by members of the staff of the Fund. The fee for the course will be $50. Further information may be obtained from the Elizabeth McCormick Memorial Fund, 6 North Michigan Avenue, Chicago.

OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by HERBERT J. HALL, M.D., President, National Society for the Promotion of Occupational Therapy, Devereux Mansion, Marblehead, Mass., and MRS. CARL HENRY DAVIS, Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.
Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

THE EDUCATION OF THE O. T. AIDE

In this and the next few numbers of THE MODERN HOSPITAL we shall give particular attention to the educational problems which concern so vitally the new profession of occupational therapy. The situation is still plastic, there are suggestions of standards, but we shall not expect to reach a general agreement for some time. Meanwhile, discussion is of great value. We publish in this issue a paper by Miss Mary Jarrett, assistant director of the Smith College Training School for Social Work, and extracts from letters from several of the special occupational therapy schools. Miss Jarrett's paper is particularly interesting at this time when we are beginning to realize that social service, nursing, occupational therapy and physiotherapy are all parts of the great movement of rehabilitation.

It would seem at first thought that there might be great economy and many practical gains if the preliminary education for these rehabilitative professions could be merged. A long step in this direction would be made if we could ask a college education as the requirement for entrance in the special schools. In the college years there is opportunity for courses that would shorten the necessary time of special preparation or at least allow more time for actual practice work. Meanwhile, is any combination of courses practical? Against such merger is the need of developing a special viewpoint almost from the first. The occupational therapy worker, for instance, must study her anatomy, her physiology, her kinesiology from the viewpoint of special application, or she will be poorly equipped for her work.

The fact is that the different branches of reconstruction call for different types of girls. In the nurse, what may be likened to the medical instinct should exist along with certain motherly qualities which are hard to define; in the social worker we look for the statistician, the mind for scientific inquiry plus the social spirit; in the occupational therapy aide, a little of all the others, combined with a love for handiwork and design, the instinct of constructiveness. It will not always be possible to pick out the right girl for the right place, but a failure to do so may mean waste and some degree of ineffectiveness.

People choose their professional careers sometimes without sufficient thought and discrimination. Perhaps in the future we shall see physiotherapy aides shifting to occupational therapy, social service, nursing, or vice versa; that would be a useful reciprocation for the schools, and would involve comparatively little loss of time, since the courses have so much in common. It might be well for the heads of special schools to bear in mind the possibility of useful transfer.

The occupational therapy schools range in their time requirement from seventeen weeks to a year, presupposing a pretty good preliminary education. The writer has no doubt that a sufficient amount of didactic teaching and practice in the crafts can be crowded into this time if the pupil has already acquired good habits of study and application. But it does not seem reasonable to suppose that most girls can become fully competent in the clinical application of their art in such brief courses. We are inclined to believe that there should be a year of probation work under competent instruction before the occupational therapy aide is given her full credentials. That year could probably be managed on some such basis as is the rule for the nurses' training schools. There might be a resident service on small pay. This would be a time of the utmost value to the hospital and the probationer aide.

The writer believes that we shall see fewer crafts taught to aides or patients. It is inconceivable that the aide can in her short course of training become thoroughly conversant with such a wide range of technical work. Does it not go without saying that the aide should know her crafts thoroughly if she is to teach them even in rudimentary form? She must be an enthusiast in her work if she is to arouse enthusiasm in her patients. For example, everyone seems to agree that hand weaving is one of the most valuable of the crafts for the handicapped, yet it is only rarely that a graduate aide is to be found who is really competent to set up and operate successfully the various types of looms. If the number of crafts were cut down, and a more thorough academic training required for entrance there would be time for really thorough training in the crafts.

Nothing but praise is due the leaders who have made the occupational therapy schools possible, and who have so devotedly served during these early years of the profession. But it is time for us to consider seriously our shortcomings and to prepare for a more exacting future.

We must make occupational therapy as attractive as possible, we must not insist on too long a course, lest we scare away good workers who are badly needed now in the field, but we must remember that in the long run it will pay to be conservative. We must remember that one well trained aide is better than many with inadequate preparation.

The writer believes that there should be a canvass of the women's colleges, for here is the most likely source of good material. In some way the advantages, the splendid opportunities for service in the four principal rehabilitation fields should be made known to the undergraduates who are making up their minds what to do.

It will all come out right in the end, but we may save much needless delay by careful planning now.

SMITH COLLEGE CONDUCTS TRAINING SCHOOL FOR SOCIAL WORK

By MARY C. JARRETT, Associate Director, Smith College Training School for Social Work, Northampton, Mass.

THE Smith College Training School for Social Work is a graduate school conducted by Smith College, which offers training courses for medical social work, psychiatric social work, and community service, and also summer courses of study open to social workers, occupational aides, and teachers. The training courses extend over a period of fourteen months and are conducted according to a novel plan, by which the students spent two summers in study at Smith College, Northampton, Mass., and the intervening winter (nine months) in practice work in hospitals and social organizations in various cities under the school's supervision.

The origin of the school was an emergency course given by Smith College in 1918-1919 to prepare psychiatric social workers for service in military hospitals. In civilian neuropsychiatric hospitals the need for social workers to assist the doctors in securing the histories necessary for proper diagnosis and to help the patients establish themselves in the community had been fully demonstrated, and for several years before the war there had been a demand for psychiatric social workers that could by no means be met. Yet no training courses existed, except an apprentice training given by the social service of the Boston Psychopathic Hospital to half a dozen students at a time. The director, the late Dr. E. E. Southard, and the chief of social service of this hospital, believing that soldiers suffering from "shell-shock" would require the same treatment as civilian patients, and should have the best that was known, planned to give an emergency training course at the hospital. A large number of students could be admitted by the use of other institutions for practice work. The Permanent Charity Fund of Boston contributed a sum of money to make the course possible. By chance, rumor came that Smith College wished to use its equipment during the summer for some educational war work and was already considering a course for some type of mental hygiene worker. A combination was effected, by which the training course for psychiatric social workers was given by Smith College under the auspices of a committee of psychiatrists appointed by the National Committee for Mental Hygiene, of which Dr. Southard was chairman. This was the first public recognition of the psychiatric social worker, and when in July, 1918, sixty-three students assembled at Northampton they knew that they had come to make history. They represented twenty-one states and twenty colleges. Thirty-eight had previously been engaged in other occupations, twelve as teachers, sixteen as social workers, three as librarians, three as secretaries, and four in miscellaneous forms of work. Some of the social workers had already satisfactory preparation for social work, and went back to their positions after the summer course. Two of them went to take charge of the social service in state hospitals for mental diseases and have done remarkably well. The students for training were distributed among four cities, Baltimore, Philadelphia, New York, and Boston, for six months of practical case work. The term of practice work was made as short as possible because the graduates would be needed in the military hospitals even before they were ready.

The object of the course was to prepare social workers who should be able to perform three functions, if necessary, or any one of the three that might be required: (1) to secure social history essential to medical diagnosis by interviews or correspondence with informants, or by interviewing patients; (2) assist the physician in psychotherapy by such means as encouragement, explanation, re-education; (3) to promote the social adjustment of patients upon discharge. The technic of social case work, taught by lecture and practice, was the basis of the course. It was recognized that an eight months course in a subject dealing with something so complex as human personality must be very superficial at best. But the aim was to drill the student in the fundamental habits of mind required for future development in her work, a professional attitude, adaptability, the habit of observation, and the psychiatric point of view.

The graduates of this first course for the most part carried out their purpose, working in military hospitals until these hospitals were taken over by the Public Health Service, when they continued in them under the Red Cross. Some of them are working in state hospitals, in social agencies, and in mental hygiene societies.

The course, as now organized on a permanent basis, consists of two months of study followed by nine months of practice and a concluding period of two months of study and writing of a thesis. The courses of instruction during the first summer session are social psychiatry, essentials of medicine, mental tests, social psychology, the theory of social case work, the field of social work, and government as a factor in social work. The course in social psychiatry comprises the main groups and simpler indicators of mental disease and defects and the principles of mental hygiene, together with a view of the governmental, social, family, and personal significance of psychopathic conditions. Clinical demonstrations are given at the Northampton State Hospital. The course in social psychology deals particularly with the instinctive, emotional, and associational motivation of conduct. The nature and significance of mental tests is taught, but not their performance, as the giving of mental tests is not properly a function of the social worker. The second summer session is devoted to discussion courses upon problems of mental hygiene, social work, and legislation.

Theory Before Application Considered Good

The method adopted by the school for practice work—nine months of full time continuous work upon the social service staff of a hospital—is believed by the faculty to have great advantages over the customary method of dividing the week throughout the school term between study and practice. The student who gives full time becomes completely assimilated into the organization, and being on duty regularly and uninterruptedly, is trusted with greater responsibilities, and therefore receives a richer experience. On the other hand, the concentration that is possible during a study period of eight weeks, makes a very intensive course.

The intensive instruction in social psychiatry before

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any practical case work is undertaken seems to be particularly efficacious. Before being called upon to assist in the care of individual patients, the student learns the nature, causes, and effects of mental diseases, and the meaning of those unhealthy states of mind that do not rise to the degree of disease but are commonly known as "peculiarities." She learns to understand individuals in the light of their origin and development, and to deal with them as they are. She sees that it is necessary to observe and individualize in order to understand people. At the same time, in the courses in social work and government, she learns something of the relations of the individual to the community from the point of view of social case work, and she acquires some idea of the procedure of case work. With this knowledge and attitude she is in a position to do at once more serious and difficult case work than she could attempt without such preparation; and therefore she acquires in her period of practical training a richer and broader experience. Required reading and one course in theory of social case work throughout the practice period help to maintain a thoughtful and studious attitude.

The same plan is followed in the training courses in medical social work and community service. The summer sessions of these courses are open to experienced workers, such as social workers, occupational aides, and teachers who wish to add to their equipment. The course in social psychiatry which is given by a well known psychiatrist, (during the coming summer Dr. F. E. Williams, associate director of the National Committee for Mental Hygiene), with the assistance of other visiting psychiatrists, is of particular value for this purpose.

BOSTON SCHOOL OF OCCUPATIONAL THERAPY, INC.

By MARJORIE B. GREENE, and RUTH WIGGLESWORTH, Principals, Boston School of Occupational Therapy, Inc., Boston, Mass.

IN APRIL, 1918, the Boston School of Occupational Therapy was opened as a war emergency school to train young women in the shortest possible time to go into the military hospitals and direct the occupational therapy work.

The training then covered a period of twelve weeks. Fifteen different crafts were taught, but the application of these crafts could only be demonstrated by lectures because of the lack of time. Though all credit is due to those young women who first entered the occupational therapy field, they worked under great disadvantage, due to the lack of knowledge of the important medical details involved in their work.

Since the armistice, the Boston School of Occupational Therapy has tried to work out the best possible training for an occupational therapy aide. The school is affiliated with the Boston School of Physical Education and the Lloyd Training School, and at present the following outline is in force. Though this course is being constantly worked over and improved, on the whole it is proving most satisfactory.

First, and very important, is the choice of prospective applicants. Not every person who has the desire can really become a successful occupational therapy aide; though of course the "will to do" counts for a great deal, the true success of an occupational therapist depends upon her personality and adaptability, fortified by thorough training, experience, and sound judgment. Our age limit is still twenty to forty. Although we sometimes make exceptions to this rule, we prefer to do so for a person over forty rather than under twenty, in fact it is very seldom that a girl under twenty-three appears really qualified for this work.

The course now covers in all, twelve working months. Five days a week, from nine until four o'clock, observing the ordinary legal holidays.

The first nine months of the course are devoted to the actual medical and social service and craft study. Anatomy, kinesiology, and physiology are arranged and given by doctors and physical educational directors, and cover about one hundred hours. Examinations are given at regular intervals and a student must pass these subjects satisfactorily in order to receive her diploma. (It is possible for a person to be an only mediumly good craftswoman and still be a very good occupational therapy aide, if she thoroughly understands her crafts, and knows how to properly direct them, but she must have definite knowledge of what she is trying to remedy in the mental, nervous, and physical condition of her patient, in order to obtain the most effective results from her work, and to avoid doing real harm.

Lectures in psychology and social service are included, together with trips to settlement houses and a month's actual experience working in settlements. This latter we feel important because of the opportunity to learn of the actual home and community life, habits, and traditions, of the various nationalities that make up America.

The major crafts—basketry, bookbinding, design, jewelry, leather, modeling, tin, spinning, weaving, woodwork, wood carving, etc.—average from seventy to eighty hours each. The minor crafts, such as brushes, dyeing, jute bags, knotting, rugs, etc., numbering in all twenty-four subjects, cover about eighty hours altogether. Time is given in all work for practice without supervision, and for original work.

Throughout the course the students are constantly working out their crafts with the thought of the different types of patients in mind, such problems, for instance, as appropriate crafts for a one-armed patient, or for those with no arms at all. Infantile paralysis in all forms is given special consideration and study, as are also tuberculosis and psychopathic cases. Lectures and demonstrations are given in work for the blind. And of course much time and attention are devoted to those unable to rise from their beds and yet who need, most of all, the attention of an occupational therapy aide.

The subject of design is given special consideration all through the course. Though it is a great asset if an aide is herself proficient and trained in the art of design, we do not consider this to be an absolute necessity, as we feel it can be sufficiently supplied, to those previously untrained, by a careful study of the fundamental principles of line and color, followed by supervised trips to the art museums and art exhibitions. Though it is always to be borne in mind that we are medical workers, we are of course anxious to make the standard of our craft work the highest possible. Students are always allowed and encouraged to trace designs, and are supposed to have in their sample book when leaving the school, numbers of designs appropriate for all subjects, so that they need

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not spend time for this when first entering the field.

Reading is carefully prescribed, and the keeping of note and sample books is made a special point.

Considerable attention is also given to reports and requisition slips, and the general system necessary in carrying out the responsibilities devolving upon an aide and head aide in the hospital.

During this nine months' period, besides the daily medical and craft study, lectures are given by different specialists in medical and general welfare work, with trips to different institutions and hospitals for observation. Lecture topics such as: the psychology of nursing, hospital ethics, tact in presenting work—personality, etc., adapting the work of occupational therapy to specific illnesses, crafts for ambulatory patients, exactness in making reports, ordering supplies, technical and business terms—weights, measures, etc.

It is our aim to coordinate all subjects taught, and to show through the daily work the broad field open to the occupational therapist.

At present, in connection with the district work, which is supervised by the school and under the direction of one of our graduates, we are running a small workshop in the school, for those patients able to leave their homes for a few hours a day, but who are not yet ready to return to regular work. This shop is watched with keen interest by the students, and brings home to them from the start the real aim and practical application of occupational therapy.

The last three months of the course are spent in the different types of hospitals, and in the district, under the direction of a trained occupational therapy aide who is personally responsible to the school for the work of the undergraduate aides. This experience work is divided as follows: one month in a psychopathic hospital, one month on the district, as an occupational therapy aide's assistant, two weeks in a tuberculosis hospital, and two weeks in a general hospital.

We appreciate fully the fact that many of the subjects included in this comparatively short course might easily be a life study. We also appreciate that there is ample opportunity to extend this occupational therapy training another two or three years, but we do feel that this one year course which opens the eyes of the students to the many branches of study to be followed, and the many groups of people touched, makes it possible for an aide to enter the field well equipped in the fundamental principles of the work, with the opportunity of developing intelligently through the greatest of all teachers—practical experience.

We offer to all graduates the privilege of returning to the school at any time for advanced work, and it is with the keenest interest that we follow their progress and receive their suggestions for the help of future students.

POSTGRADUATE WORK IN OCCUPATIONAL THERAPY NEEDED

In the field of medicine, the man who depends upon early school and hospital experience to carry him all through life is in danger of becoming a back number. The whole range of medical literature becomes obsolete in a few years. Postgraduate courses are almost a necessity if the doctor is to serve his community well.

In occupational therapy, especially now, when the preparation in hurried and inadequate, there is great need of a school where the aides may go to brush up their subjects after a few years of actual hospital experience. The postgraduate student knows what is needed, and is in a fair way to get it when he goes back to school.

The Medical Workshop at Marblehead, Mass., has in mind the development of such a school. The plan is still without detail, but briefly it is this, that for perhaps a month twice a year lectures would be given by some high authority in advanced medical psychology, and in the principles and practice of applied design. The workrooms would then be open for special practical courses in weaving, and in toy manufacture, basketry, and metal work.

It should be possible, in summer at least, for the graduate aide to combine needed rest and recreation with such a course. The pleasant and stimulating association with other workers should prove in every way worth while.

This plan can probably not be carried out before another summer, but meanwhile the management of the Medical Workshop will be glad of advice and encouragement.

AN ALTERNATE STILL AVAILABLE

In the old days a young man who wished to study medicine apprenticed himself to a doctor, usually a country doctor. For several years the boy would take care of the doctor's horses, keep the surgery in order, and do odd jobs about the place, spending his spare time reading anatomy and materia medica. After a little the boy would get a chance to assist at operations, and he might even be asked to sit up as a watcher in pneumonia or typhoid cases. All the while he would be picking up odd bits of useful information about the practice of medicine. When enough money had been earned the doctor's boy took a few short winter courses at a medical school, and so became a doctor himself. If he had the right stuff in him and happened to have apprenticed himself to a good man, he could be counted upon to serve his community well enough. Such a course turned out strong, practical, resourceful men.

These are days of standardization and of thorough preparation, but in occupational therapy it is still possible for a girl to succeed and be what may be called a self-made re-aide. The state hospital or the small general hospital that has a good head aide may well, for a while at least, be open to girls who cannot afford the time for a regular course in occupational therapy, but whose natural abilities and whose previous education have prepared them in a way for occupational therapy work. These institutions cannot as a rule pay a large salary, but they can take in apprentices who are really in earnest. We cannot recommend this procedure except in rare instances, but it still remains a sort of rear entrance to the profession, and we must not forget that some of our best teachers in social service, for instance, have arrived by such a course. Soon this rear entrance will be closed, but meanwhile it may well be used by a few who see the opportunity and who are of the stuff to succeed against odds.

ENGLISH MEDICAL EXPERTS VISIT LIBRARY

Major-General Wilmott Harringham, Royal Army Medical Corps of England, and Sir Walter Fletcher of the British Research Council, are now in the United States investigating problems of medical education and medical progress. On April 29, accompanied by Mr. Frank Stubbs, of the Rockefeller Foundation, New York City, these distinguished guests visited the Hospital Library and Service Bureau, Chicago, Ill.

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THE PHILADELPHIA SCHOOL OF OCCUPATIONAL THERAPY

By FLORENCE WELLSMAN FULTON, Philadelphia, Pa.

IN PHILADELPHIA the appreciation of healing by occupation has been steadily growing among our doctors and surgeons, and the work, begun as a war time measure nearly three years ago, is now being continued in the interests of civil and private institutions, as well as in government hospitals. The directors of the Philadelphia School feel that they are doing all that they can to make the school a superlatively good one and are pledged to educate only the right type of women to enter upon this important field.

The regular course now being given in the Philadelphia School covers a period of nine months. The work in the crafts, and the lecture course begin early in October and continue for seven months. During the latter part of this period the students are sent out for hospital practice two half days each week. The faculty is composed of women who are not only expert in the particular crafts which they teach, but are also familiar with the application of these crafts to the practical needs of occupational therapy. The lectures are given by eminent physicians, surgeons, psychologists, and neurologists. A woman physician gives the course in anatomy and kinesiology, and another the lectures on personal and social hygiene. May and June are devoted to hospital practice exclusively. Up to the present time this practice has been divided between two hospitals, the Philadelphia General Hospital and the Pennsylvania Hospital for the Insane. This year the training will be slightly different. The students will be sent in groups of two and three to these two hospitals as usual, but they will also have the opportunity for practice, with maintenance, at the Friends' Hospital, and for field work under the direction of the occupational therapy department of the Visiting Nurse Society. Another departure, one that is strongly advocated by some of the physicians on our advisory board, is the placing of the student directly in the hospital to which she is to be detailed as an aide. Two of our students, therefore, without any preliminary training, are entering the tuberculosis work at Mont Alto, and a third will go to a general hospital where there is an urgent call for immediate help.

Would Like Two-Year Course

It is a matter of regret that up to the present time it has not been possible to have a course covering a period of two years. It has been found that the work is too new and too little understood for prospective students to be willing to enter upon a vocation requiring so long a training, and one which to many appears to be something in the nature of an experiment. In order to overcome in a measure this difficulty, the graduates of the Philadelphia School are urged to take up any new courses that may be offered the year following graduation, and certain courses are being developed so that there is always an opportunity for postgraduate work. In the meantime the course is a very full one, with few or no idle hours for the student. To those whose home duties are such that they can give only part time, a course is planned to cover a period of two years. Special students are also admitted for certain crafts, experience having proved that the interest of the special student is frequently so stimulated that she eventually enters upon the regular training in occupational therapy.

The directors of the Philadelphia School felt that the curriculum might be greatly strengthened if the latest ideas and improvements in technic and methods could be discussed by the heads of the various schools. In accordance with this thought, the dean of the Philadelphia School visited several of the Western cities about a year ago and, where a school or hospital had developed some particularly good plan of work, the idea has so far as possible been carried out in the Philadelphia School. From the St. Louis school the plan of the workshop for the handicapped was developed, and the work in the Chicago State Hospital and in the Milwaukee Children's Hospital suggested that some kindergarten training might be useful for occupational therapy aides. Various minor ideas were appropriated and are herewith gratefully acknowledged.

Require High School Training

The entrance requirements are a full high school education or its equivalent, and stress is laid upon suitable personality as well as a high degree of physical health. Those who have already had experience in teaching are excused from any craft in which they are proficient, and are given this extra time for hospital practice or field work. In this way their actual working hours may be appreciably reduced. Diplomas are granted only to students successfully completing the course of instruction and the hospital practice.

The total number of hours of work in the school, including visits to various institutions and preliminary hospital practice, is 885, and the time required for outside work is approximately 280 hours. The time is divided as follows: lectures and visits to institutions, among which are the school for the blind, the speech reading school, the home for feeble-minded, and the public health hospital, 200 hours; wood construction, toys, etc., eighty-two; weaving, 126; reed basketry and chair caning, eighty-two; varied crafts, including filet and pillow lace, cord knitting, bead work, etc., eighty-two; elementary book binding, sixty; chip carving, thirty-two; simple jewelry, forty-two; kindergarten, forty-two; design, on which great stress is laid, applied to stenciling, block printing, pottery, modeling, etc., 137.

So far no academic studies have been required, though there is a prescribed course in reading. The study of at least one language is under consideration for another year, and a short training in business methods is being planned.

Patients Sent to Workshop

The workshop for the handicapped is under the direction of one of the graduates, with two of the students detailed as assistants. Patients are sent to us from the Visiting Nurse Society, the Episcopal City Mission, the Farmington Clinic, the Southeastern Pennsylvania Chapter of the American Red Cross, and from various other charitable institutions of the city. A cardiac clinic at Mount Sinai Hospital is planning to make use of the workshop on regular days, as soon as the school can offer the proper facilities to care for so large a number of

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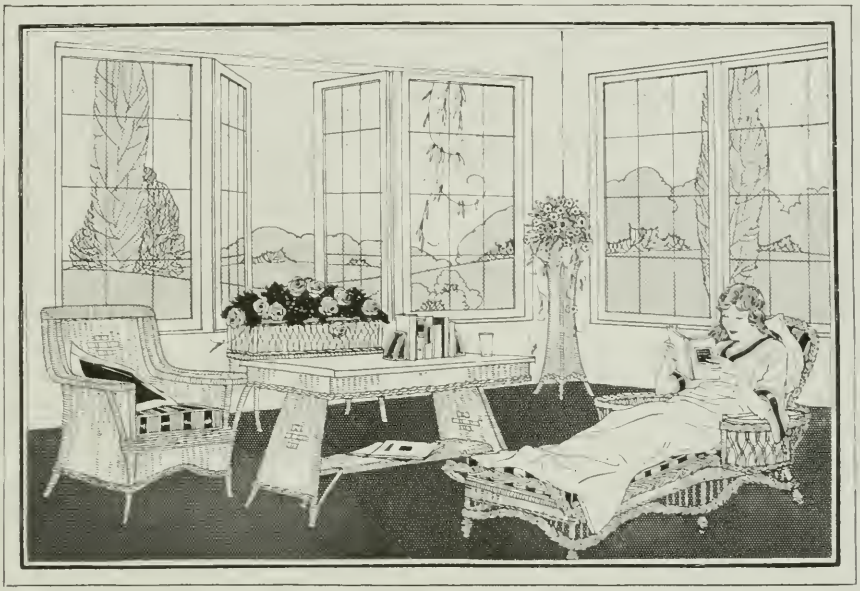

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patients. Since it is an undeniable fact that occupational therapy is a tremendous factor in the treatment of industrial accident cases, the school authorities are being urged by those closely in touch with the industrial plants to enlarge the workshop in order to care for as many such cases as possible. To meet these conditions, the directors feel that a larger building, with modern equipment, is absolutely indispensable to the success of the work, and the future development of the school.

The interest in the work of occupational therapy, and incidentally in the school, is growing day by day. The State Federation of Pennsylvania Women has endorsed the work, and put it into the hands of a special committee functioning under the committee of health and hygiene. This committee is giving publicity to occupational therapy, its possibilities, its needs, and its advantages. The Junior League of the Delaware County Woman's Clubs is following the example of the Junior Leagues of St. Louis and of Milwaukee, and is proposing to take over, as its after-war service, the Philadelphia School, planning for scholarships, and trying to create definite interest in the development of occupational therapy.

THE RED CROSS SCHOOL OF OCCUPATIONAL THERAPY AT DETROIT, MICH.

By CAMILLA B. BALL, Director Educational Department, Committee on the Handicapped, American Red Cross, Detroit, Mich.

During September of 1918 a school of occupational therapy was instituted in Detroit, by Mrs. H. B. Joy, and Mrs. William Burtenshaw, at the old Newberry Home on Jefferson Avenue. The Detroit Chapter of the American Red Cross financed this activity. Its purpose was to meet the call of the Surgeon General for reconstruction aides in the United States Army. Since its beginning seven classes have been graduated from the school, and most of these occupational therapy aides are now engaged in their profession in the various hospitals of the country.

The school, through its affiliation with the Red Cross, together with the influence of a philanthropic group of women of the city, has attracted an unusual set of students from year to year. The majority of applicants were college women or women who had acquired some measure of success in business, one of the professions, or art. With their splendid background, the occupational therapy students have used to unusual advantage the period of fourteen weeks' intensive training. The history of their professional success has been almost unbroken, and they are now doing work in the United States Army, United States Public Health Service, local hospitals, and other institutions.

Applicants for the school must be high school graduates and we ask for a year's college work, or its equivalent in business or art training. A student must be between the ages of eighteen and forty-five, and furnish three recommendations in regard to character. The school gives fourteen weeks' intensive training, and the students have the privilege of putting in nine extra hours each week in the workshop. The tuition for the course is sixty dollars, each student paying in addition for the material used in her own craft work.

The following crafts are taught and a notation is made of the number of hours devoted to each project: basketry, using reed, pine needles, and raffia, seventy hours; metal work using the medium of copper, brass, and sterling silver, and employing the methods of soldering, cutting, bending, coloring repoussé, etching, and piercing, seventy hours; weaving in plain rug designs and pattern, textile work in silk, cotton and wool fabrics, setting up Devereux Mansion, Lane, and Little Dandy weaver looms, seventy hours; chair caning, eighteen hours; bookbinding, including pamphlet binding and repairing, thirty-five hours; leather work, using the method of tooling, carving, rush seating, fourteen hours; plain close weaving of chair seats, seven hours; toy work, thirty-five hours; wood carving fourteen hours; modeling, fourteen hours; block printing, fourteen hours; manual training, seventy hours; design, seventy hours.

Seventy hours are given to lectures, and emphasis is placed upon the following topics: kinesiology, tuberculosis, surgical, mental, and general cases, the handicapped, blind, and crippled, as relative to occupational therapy.

Due to our affiliation with numerous hospitals and schools, we have an opportunity of drawing our instructors in the various crafts from a wide field, and as a result we are fortunate in having an expert for almost every subject. They bring an experience and training invaluable to the women in training.

After their intensive training in the school of occupational therapy, the students are placed for three weeks' training at the following institutions, and are supervised by the individual indicated: Curative Workshop for the Blind and Crippled, Newberry House, Camilla B Ball, director; Detroit Tuberculosis Sanatorium, Edith Sullivan, head aide; Harper Hospital, Miss McLaughlin, head nurse; Herman Kiefer Hospital, Cleora Wannamaker, head aide in occupational therapy; Kalamazoo State Hospital (mental), Marion Spear, supervisor.

At the end of the period of practice training, a report is made to the director of the occupational therapy school.

As a result of the interest centered around the school and its graduates, the Michigan Association of Occupational Therapy has come into being. The organization work was begun in January by the educational department of the Detroit Chapter of the American Red Cross. Its purpose is to further the work in the state, maintain a higher standard of professional ability, and facilitate the placing of aides in desirable positions. The following are the officers of the organization: Mrs. William Burtenshaw, president; Camilla B. Ball, vice-president; Marian Morton, recorder and secretary; Clara Beebe, treasurer. The headquarters for the association are at Newberry House, 1363 East Jefferson Avenue, Detroit.

EXAMINATION FOR RECONSTRUCTION AIDE

The United States Civil Service Commission announces an open competitive examination for reconstruction aide. Vacancies in the Public Health Service throughout the United States, at $720 to $960 a year, with quarters, subsistence, and laundry, where these are available, and the increase granted by Congress of $20 a month, and vacancies requiring similar qualifications, at these or higher or lower salaries, will be filled from this examination. It is expected that several hundred appointments will be made.

On account of the needs of the Service, applications will be received until further notice. Papers will be rated as received. Applicants should apply to the Civil Service Commission, Washington, D. C., for Form 1312, stating title of the examination desired, or "Reconstruction Aide."

As part of its participation in the celebration of "Hospital Day," the Schirrman Hospital, Portsmouth, Ohio, sent out a little pamphlet "intended as a contribution to the nation-wide movement for better hospital service." The pamphlet set forth the aims of the hospital and its policy, and gave a little tribute to Florence Nightingale, on whose birthday Hospital Day was celebrated.

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DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR.

Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, and Chief, Service Bureau on Dispensaries and Community Relations of Hospitals, American Hospital Association, 15 W. 43rd Street, New York

THE WIDENING SCOPE OF DISPENSARY SERVICE

By JANET THORNTON, Boston, Mass.

DURING the past twenty-five years dispensary service has developed rapidly in almost every part of the country, and today dispensaries are the greatest organized force in the health movement. Health is the slogan of our generation, health for children, health in industry, health for all—a world embracing concept. The word holds for us the aspiration and effort that "education" held for our forefathers, and the ministers to minds or bodies diseased, rank every bit as high as ministers to the soul. Indeed the search for health is so ardent among us that to some skeptical natures it appears more morbid than the distempers it combats. Yet deeper knowledge and experience of the health movement lead rather to amazement than skepticism; amazement first, that medical knowledge should keep so far ahead of medical practice, and that the best medical practice should reach so small a part of the community; amazement again, that so much we have believed sound hygiene in the common experiences of life, relating for instance to food and drink, to fatigue, to education, and above all to human relations, should be questioned and found wanting, and that even the small body of scientifically established principles of hygiene should be so generally ignored. Out of these states of amazement come reflections of concern to dispensary workers. Looking upon our community life, it is saddening to realize that we are still, after many thousands of years, unable to live together without hurting one another in both physical and spiritual ways.

Furthermore, those who can know and watch the sick realize that the victim of disease is largely not to blame for his condition, while he must largely bear the burden of it. How little the community is concerned for its part in illness is proven by the slender support granted most of our medical institutions. That no one in our communities liveth unto himself alone is conceded where scarlet fever, diphtheria, and other germ-borne diseases are present; it is more grudgingly conceded where syphilis and gonorrhea are concerned; only very dimly and partially where accident and disease arise in industry; and barely, if at all, in the most numerous group of maladies, those due to prolonged under-nourishment and the other hardships of real poverty. To the dispensary worker it becomes a primary duty to call upon every member of the human family to take his share of responsibility for the well-being of all, not merely for protection from harmful bacteria, but for opening the paths of opportunity to all, and every health worker knows that opportunity is lacking to the ill-fed, handicapped child of the tenement. Hygienic and medical knowledge do already exist in sufficient quantity to protect from bacteria and to liberate human life. It awaits but the power to put it to use. Now, may it not be that dispensaries, improved and adapted to larger community needs, will be the simplest and most practical means at hand for this purpose?

Several factors cause the obstruction that now hinders the free release of power which would make better and fuller use of the medical knowledge and skill stored away; and of these the two prominent factors are the dearth of trained social service personnel, and insufficient financial support. The latter is today uppermost in the minds of all hospital and dispensary administrators. Where is the money to keep up our institutions even in their present inadequate state, not to mention improvement or expansion?

One cannot but wonder whether we may not be approaching the limits of benevolence as expressed in charitable donations, and whether it may not soon be necessary to find ways to distribute more equally in the community the burden of support of our medical work. Even an expenditure of $158,000, which was necessary to maintain the clinics of the Boston Dispensary last year, does not furnish really adequate conditions for the best medical practice, and does not adequately recompense those rendering service. Only about 12 per cent of our medical staff receive any remuneration. In many departments the medical staff is overworked, in almost all the social service, the nursing, and the clerical staffs are overworked. The result is insufficient study of the patient's needs, insufficient interpretation and instruction to him, insufficient help where he needs outside resources to accomplish the treatment. Medical knowledge must still wait for service to render it practically useful to human beings.

My own experience in family welfare work and hospital social service has shown me how sorely the people need guidance and inspiration for better health of mind and body. It has shown me, too, the deep springs of scientific knowledge ready for their use. The opportunity to bring the waters of these springs to the people craving them comes to every dispensary every day. The difficulty is that our present dispensaries, still operating on the old individualistic and charitable principles, are not prepared to take advantage of the opportunity. They must be socialized and liberated as well as scientifically equipped; laboratories, x-ray machines and all the increasingly costly paraphernalia of science will not alone prepare them.

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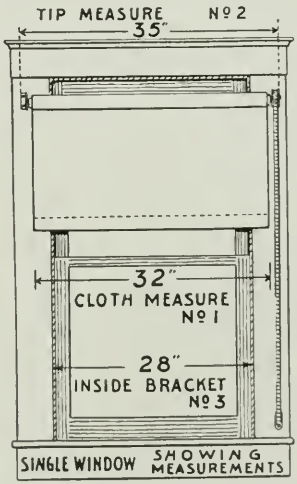

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Indeed, it appears that the health program has become too big to be charitably dispensed. Hardly have we set out upon the road before the cost has become prohibitive. Health centers like public schools may have to be developed where it will be possible for everyone who will, to learn to attain his maximum of health just as it is now possible to attain education. Some of us are born constitutionally unfit in one way or another, and may never attain high physical or mental development. Nevertheless, the assurance of opportunity for each to attain his best is, I firmly believe, a practical ideal for every community. It must not be forgotten, though, that such assurance of opportunity for attaining health means more than health centers or dispensaries. It has been demonstrated many times that good health is not long possible for people, however well instructed they be, who are bowed down by the miseries of poverty. Somehow, we must find the way to make the labor and the hire worthy of the laborer.

Are we to continue to struggle to meet the ever-increasing demands? I very much hope so in 1921, and for a few years longer. But ultimately I believe we should aim toward a more economical arrangement, which will be communistic and cooperative, rather than individualistic in its outlines. Two kinds of dispensaries will be required: One connected with the modern hospital, fitted up for all manner of difficult diagnostic service and the treatment of cases requiring bed care or costly materials and machinery (as radium, electricity, dental surgery). One hospital dispensary of this kind can serve a large population, be it crowded in one city or scattered over many square miles. Closely associated with it will be the other kind of dispensary, one for each small neighborhood, as it were. The second kind will have no wards for bed treatment and only the simplest equipment in buildings and laboratory facilities. It will specialize in service to patients; it will practice social medicine, rather than scientific research; its expenditure will be for personnel, far more than for white enamel and fine apparatus. The present experiments in health centers point very clearly, I feel, to such a division of dispensary types.

"DISPENSARY ABUSE" IN BUFFALO

"DISPENSARY ABUSE," in the sense of the use of a charitable dispensary's facilities by patients who can afford to pay a physician, has for many years been a subject of discussion and controversy, but it is seldom that so determined and sincere an attempt has been made to meet the problem, and adjust fairly the differences of opinion between the physician and the social worker, as was made at the recent meeting of the Medical Society of the County of Erie, New York, held in Buffalo. This meeting was called by Dr. Walter Goodale, director of the Department of Hospitals and Dispensaries, Buffalo, who felt, as a result of replies received from questionnaires, that the physicians of the county had too little information concerning social service work in the county.

The April number of the *Foundation Forum*, a publication conducted by the Buffalo Foundation, gives a brief report of the efforts made in Buffalo to promote better understanding of social work by the physician, and of the problems of private medical practice and fair use of medical charity, by the social worker.

The economics committee of the Medical Society of the County of Erie recently circulated a questionnaire among its eight hundred or so members, asking their frank opinion on the health center system as it is operating in Buffalo. About ninety replies were received by the committee, and these responses were in the ratio of more than two to one in favor of the health centers.

The objectors to the health center system maintained chiefly that private physicians were being deprived of a not inconsiderable portion of their legitimate practice through the abuse of the free health center and clinics by patients able to pay a private practitioner for such medical services.

The objectors further accused social workers of aiding and abetting this alleged abuse by too free recommendation of the health centers and by lax investigation of the financial condition of persons recommended to the clinics.

These accusations were of so vague a nature that no definite or specific charges could be found among them.

To bring the matter up for open discussion, Dr. Arthur G. Bennett, president of the medical society, and Dr. Walter S. Goodale, superintendent of the Department of Hospitals and Dispensaries, arranged for a meeting of the medical society at which representatives of eleven social agencies read short papers on the health center question as approached from their different angles.

At the conclusion of these papers, the question was thrown open to discussion, a number of physicians voicing their objections to health centers, the chief complaints being that social workers had here and there recommended patients to the free clinics who were able to pay a private physician for such services and that the health centers, particularly the urologic clinic and the baby clinics, were cutting into the practice and diverting fees from private physicians.

One physician rose to express the hope that the doctors might discuss health centers from a somewhat higher, broader viewpoint, and another called attention to the value of the free clinics as training places for young physicians and as places where persons could come to appreciate the value of consulting physicians rather than avoiding them until the last minute.

Following that meeting, the economics committee of the medical society and the social workers who had read papers came together for a discussion to discover if some better working basis could not be arranged, this conference being in accordance with a resolution adopted at the medical society meeting.

That conference finally narrowed down to the problem of making financial investigations of patients sent to health centers, and Dr. Abraham H. Aaron, chairman of the economics committee, said he would ask each social agency in the city and county to give him its method of making such investigations.

The discussion again centering on the Court Street urologic clinic, Dr. Frances M. Hollingshead, director of the Buffalo Foundation, consented to act with Dr. Aaron or other designated physicians in making an intensive study of several weeks' duration of a group of patients applying at the Court Street clinic, to determine, if possible, some practicable and more nearly complete method of investigating the ability of such applicants to pay for treatment.

Taking up this phase of the matter, a committee of social workers drafted a letter which was signed by the executives of the organizations concerned, and sent to the medical society's economics committee, which read as follows:

"You will remember that at a meeting held on March 21, 1921, at the University of Buffalo, during the discussion of the papers of the evening, several times the statement was made that patients had been shifted from private physicians to the health centers through the influence of social workers.

"No one of the social agencies lays any claim to a perfect system. There are a large number of field workers in the city, both paid and volunteer, and there is of course a possibility of making a slip at any time. Since the social agencies are perfectly sincere in their expressed

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desire to cooperate fully with the physicians, they will court any honest criticism of their workers, provided such criticism is definite and made in writing, or directly to the heads of the organization concerned, by word of mouth. Any such cases will be taken under immediate and serious consideration. It is hopeless, however, to run down vague and general statements which go through two or three persons.

"The undersigned executives respectfully request, therefore, that in the future all such criticism shall be specific, shall be preferred in writing, and referred to the joint committee of physicians and social workers for consideration and adjustment."

As the matter now stands, social workers testify that the health centers, despite some admitted faults, are doing a necessary work in this city, and they are ready at all times to investigate any specific, authoritative complaint, in which they are concerned, of free service being given to patients well able to pay.

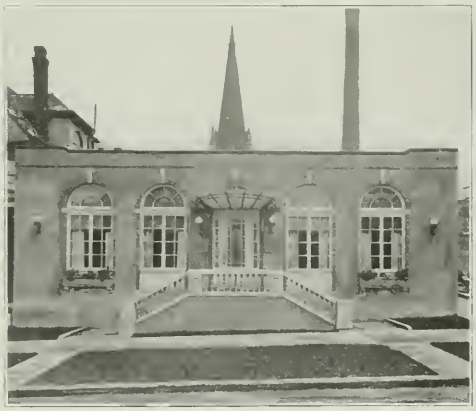
The great majority of physicians who have expressed themselves on the matter, favor the health center plan.

Those against it are not sufficiently definite in their complaints of loss of fees through the abuse of clinics.

Finally, the way is open to adjust all bona fide complaints.

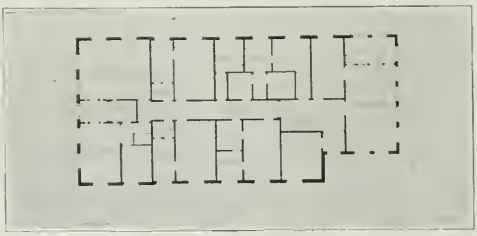
THE ROOSEVELT CLINIC IN SEATTLE

Owing to the highly specialized conditions in their practice, a group of Seattle physicians found it necessary to construct a building especially adapted to their needs. This building is one story and a basement, with garages



The Roosevelt Clinic, Seattle, Wash., where a group of doctors have their offices and recreation rooms. Bebb and Gould, Seattle, architects.

at the rear. The entrance is placed in the center, with men's and women's waiting rooms at the sides. From these waiting rooms is accessible the main corridor of the building, and upon which the various doctors' offices are located, each suite being arranged with a general consultation room, examination, and dressing room. In the rear of the building is located a general dressing room, minor surgery, and a recovery room. The building is fully equipped with a sterilizing room and an x-ray laboratory, and various other modern equipments.



Plan of the Roosevelt Clinic, Seattle, Wash., Bebb and Gould, Seattle, architects.

The building is of the ordinary masonry type of construction, finished on the exterior with white stucco, with variegated buff brick trimmings. A very pleasing effect is obtained by a limited amount of pre-cast stone. The waiting rooms are artistically decorated, and are furnished with wicker furniture. White has been avoided throughout the interior, and every effort has been made to get away from the old type of hospital finish.

DR. ADDISON, MINISTER OF HEALTH, RESIGNS

Dr. Addison, the first minister of health of England, the office having been created in June, 1919, has resigned. The duties of the ministry have included coordinating half a dozen government departments which dealt with various phases of public health, and attacking the housing problem, which had become very acute. Before he entered politics, Dr. Addison was an anatomist at St. Bartholomew's Hospital. In his term of public work he has showed great energy and skill, and has carried out the work of reorganizing the medical service with success, but owing to the attitude of the trade unions he has not been able to make much progress in the matter of building. Dr. Addison's plans for reforms, however, made him enemies in the political field who charged him with extravagance, and organized a press campaign against him. No reason is given for Dr. Addison's resignation, but it is thought to have been due to disgust at the unjust way in which he has been criticised.

CONFERENCE OFFERS BROAD PROGRAM

The National Conference of Social Work will be held at Milwaukee, Wis., June 22-29. There will be ten divisions, so that every type of social work will be represented. Among the papers included in the program for the health division will be: "The National Health Council—Organization and Program," by Donald B. Armstrong, M.D., Framingham, Mass.; and "The National Health Council —A Council for Coordinating Child Health Activities," by Courtenay Dinwiddie, executive secretary of the Council, Washington, D. C. There will be papers on the health program of the American Red Cross, the significance of child health work, government departments in their relation to health, and other interesting topics.

The division of mental hygiene has divided its program into four divisions: mental hygiene problems of normal childhood and youth, of subnormal children, and of maladjusted children, and the educational value to the community of mental hygiene agencies.

HOSPITAL OPENS CLINIC

St. Luke's Hospital in New Bedford, Mass., opened, on May 2, a clinic and dispensary. An addition has been constructed and fitted with all modern equipment for the successful care of patients, at a cost of about $60,000. The various departments of the clinic are as follows: children, adult medical, orthopedic, nerve, throat, surgery, eye. Although it has been open only a few days, the response has already been such as to encourage the authorities of the hospital, and gives assurance that it will successfully meet a great need in this community.

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EDUCATION OF PHYSICIAN AND PUBLIC NECESSARY TO BRING ABOUT PREVENTION OF TUBERCULOSIS

AS THE medicine of the future, to a large extent, will be that of prevention, there is no doubt that the practice of medicine will have to be revised considerably in accordance with this trend. That is not to say that curative medicine will be a thing of the past, there will always be plenty of scope for treatment of this kind, seeing that there will always be diseases which have passed the stage of prevention, or which cannot be prevented. Also preventive treatment does not mean that the majority of diseases will be prevented entirely, but rather that if diagnosed in an early stage and treated by appropriate methods they may be prevented from going further, in fact, that they may be nipped in the bud. In order to bring about this desirable state of affairs, it is essential that the medical practitioner be competent to make an accurate and early diagnosis. Sir James Mackenzie is devoting his time to this end at St. Andrews, Scotland; he is endeavoring to teach the general practitioner how to diagnose diseases in their incipient stages. The British Ministry of Health is in agreement with this point of view and is in favor of pursuing his methods on a large scale as soon as the opportunity offers. But it is not only necessary that the medical man shall be able to diagnose early symptoms promptly and accurately. The patient must come to him as soon as the early symptoms of disease appear. To induce him to do this is even more difficult than to teach the practitioner how to diagnose accurately and to estimate the importance of early symptoms. The patient, as a rule, does not go to the doctor when first feeling "out of sorts," but is liable to put off going until the disease has gained a foothold. Therefore, the public must be educated to seek medical advice at the early premonitions of sickness. To no disease, probably, do these tenets of prevention apply more aptly or with greater force than to tuberculosis, and especially to chronic pulmonary tuberculosis, otherwise known as consumption. It has been now definitely ascertained that if this form of tuberculosis be properly treated in the early stage, the spread of infection through the system may be so arrested that if a healthy life be lived, no recurrence need be feared. However, that this aim may be achieved, an early diagnosis must be made and treatment must be based on strictly scientific rational lines, that is, so far as such lines are understood up to the present time. It must be promised and insisted upon that there is no royal road to success in either the treatment or prevention of tuberculosis. For example, as pointed out by several speakers at the eighth annual conference of the National Association for the Prevention of Tuberculosis, held in Liverpool, October 7 to 9, 1920, in prevention there are many factors to consider. There is need for adequate sanitary and hygienic housing accommodation, this is an imperative, perhaps the most pressing, need. Adequate and suitable food is another outstanding factor. Diet plays a great rôle in prevention and treatment. The segregation of infectious cases, and the treatment of the sick as a means of preventing cross infection are points which must be considered and acted upon. Again, there is urgent need for a non-tuberculous milk, for while views of authorities vary as to the peril involved in milk containing the germs of tuberculosis, the majority of English speaking investigators and medical practitioners are of the opinion that tuberculous milk is a fertile source of infection so far as infants are concerned.

It must be borne in mind that although many specific remedies have been loudly heralded, at the present time a Swiss is claiming a cure for tuberculosis which is being investigated, none as yet has fulfilled expectations, and consequently, it is necessary to employ many methods of general and specific importance in prevention and treatment. Research is required. There are still many obscure points with regard to tuberculosis which can perhaps only be cleared up by laboratory investigation. While sanatorium treatment has not been the conspicuous success which its initiators prophesied for it, neither has it been the dismal failure which many of the speakers at the Liverpool conference declared that it had been. Properly carried out sanatorium treatment has its place in the treatment of tuberculosis, and of pulmonary tuberculosis in its early stages, in particular. As more than one speaker at Liverpool indicated, too much was expected of sanatoriums on account of the indiscreet laudation of the pioneers of the method. Sanatoriums were to be the means of abolishing the white plague, and when, after some years' trial, there too exuberant prophecies did not come to pass, a revulsion of feeling took place and sanatoriums were condemned as useless or worse than useless. It appears that sanatoriums are one means of treatment, and that when the cases are selected with care, and appropriate treatment is adopted, the results obtained in these institutions is satisfactory. Therefore, in spite of the fact that sanatoriums by themselves can never solve the problem of tuberculosis, on the other hand,

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Page 413

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it will not be a waste of money to build more sanatoriums. They are links in the chain of prevention treatment. The first and most important need in this country, according to the views of most of the speakers, is the building of decent houses throughout the land. There is as great a lack of adequate and healthy housing accommodation in the country as in the city. This is the crux of the problem. So long as there is a dearth of well ventilated and sufficiently commodious houses, so long will consumption flourish. By erecting good houses a blow is struck at the disease at its source, which is no doubt the most effective mode of prevention. Unfortunately, the Ministry of Health is greatly handicapped in its efforts to provide houses. It is difficult to induce men to work, and when they do work, their wages are so high, and the material and transport are so expensive, that the cost of building is almost prohibitive. The agricultural colony and the industrial colony are other links which have been forged but recently. They seem, as far as can be judged, to be fulfilling their purpose well. The Papworth Colony, near Cambridge, was visited by the writer at the time of the meeting of the British Medical Association in that city, and impressed him greatly. Recently a new colony has been established near Liverpool in connection with the Liverpool Sanatorium. Like Papworth Colony, it is a combination of sanatorium, agricultural, and industrial colony. Colonies for ex-service men and civilians are now being planned or are in course of development in various parts of Great Britain and in British lands overseas. Some of these are aiming mainly at training in agricultural, horticultural, and allied interests, and others are giving special attention to instructions in handicrafts. Lastly, it may be said that institutions or colonies for the segregation of those suffering from chronic pulmonary tuberculosis in an advanced stage are essential links in the chain of prevention. The consumptive in an advanced stage is a menace to the community and for the good of the race must be kept apart from his non-infected fellows.

* * * *

I said in a former part of this letter that the British are very averse to advocating the establishment of pay hospitals, or pay wards in hospitals; this is undeniably true. In all the discussions and controversies which have raged of late concerning ways and means of continuing, extending, and reforming the hospital system in Great Britain, it is but seldom indeed that a voice is raised in support of the pay system, and if so raised, it is in a timid and apologetic manner. However, Mr. Morris in finishing his argument for hospital reform says "And think how many of those precious hospital beds so invaluable for diagnosis purposes, and so much less valuable than they should be for curative purposes, would be set free by such a scheme to give help to those most unfortunate of all, the middle class to whom the hospitals' doors are officially closed and who cannot by any possibility afford what is free to the lounger at the public house door, or the hawker shouting his wares in the Mile end-road. These people, the proud and hard hit middle class, would gladly pay three or four guineas a week ($15.75 or $21.00) to have an equal chance with those others in getting well. I believe their payments would go a long way towards providing for the upkeep of these country annexes, which would not be very costly."

Also, as I think I mentioned in a previous communication, Sir George Newman, medical adviser to the Ministry of Health, in his clear and cogent "Outline of Preventive Medicine," issued recently, said tentatively in discussing the hospital situation that some patients may be able to afford to pay for treatment and this will raise the further question whether some hospital accommodation should not be available for "paying cases."

Future Hospital System

It is plain that, whether the voluntary system, or a modified voluntary system is continued, or a State Control system is inaugurated or a pay system is brought into vogue in Great Britain, the future hospital system will differ widely from the present. Certain of the existing methods of control and management are relics of the feudal age, revised in conformance with modern views. British hospitals have done and are doing splendid work; but this does not mean that their mode of working is not susceptible of vast improvement. If the future of the British hospital, and of all hospitals, lies in the preventive rather than the remedial or curative treatment of disease, then very drastic changes in the present system must be made, and a beginning should be made at once. There is a good deal of available hospital accommodation which is not put to proper use, and there is a lamentable lack of organization generally. In America, hospitals are open to all classes of the community, and the accommodation is paid for largely according to the means of the patient. It seems to be generally realized that in order to obtain the best medical and surgical treatment and nursing care a sick or injured person should go to a hospital. This view is not taken in Great Britain, or rather, if taken, cannot be carried out under existing conditions. On the other hand, it does not seem to be so thoroughly recognized in America as here that the future hospital will have more to do with the preventive treatment than with the remedial or curative treatment of disease. Each country can learn from the other with regard to the best means of evolving an ideal hospital system.

Lax Business Methods Entail Large Costs

Well known as is the lack of hospital business methods, very serious consideration ought to be given to several of the most glaring and most unscrupulous practices of modern firms dealing in hospital supplies. Padding orders by the addition of items, sending large unordered shipments and prompt billing immediately after a new superintendent has taken office, with the intent of creating the impression the order was placed by predecessor, are minor but effective ways of exploiting hospitals. Goods are often not ordered but sent with a knowledge that, at first, billing will indicate someone ordered and that before the error can be corrected articles will be separated so far that the easiest solution is to pay the bill.

All of these obvious unbusinesslike perpetrations can be remedied by the simple expedient of ordering only by written numbers and the retention of all carbon copies. Serially numbered orders are the first requirements of an established business policy, and this requirement will be respected by all business firms. The number will always appear on the invoices and the shipments. Subsequent checking of the goods received and the prices billed against the copies will eliminate every error and will often save many times the original cost. Orders should also come only from one department or person, and should be based on written requisitions.

Frequently the many duties of a hospital superintendent complicate his position as a buyer. He will, therefore, find a file of the record of purchases, made with prices for all goods not delivered, of great value, and he will appreciate the general reputation of his hospital in the business world will be enhanced by employing recognized methods.

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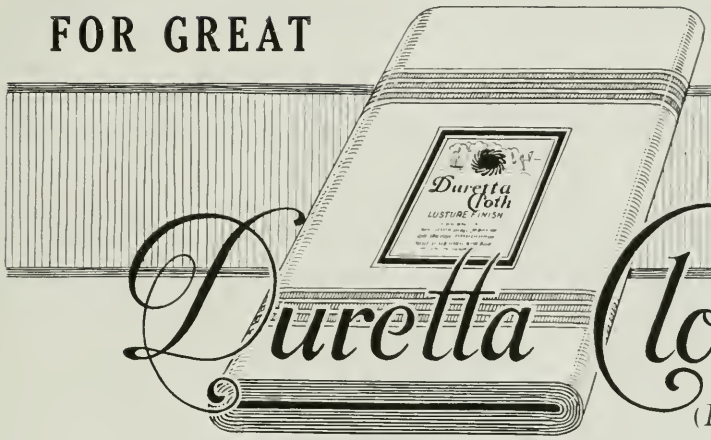

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Book Reviews and Current Hospital Literature

CLEVELAND SURVEY COVERS INDUSTRIAL HEALTH SERVICE

By HARRY E. MOCK, M.D., Chicago, Ill.

IN UNDERTAKING to study existing measures for the safeguarding of the health of industrial workers, the survey committee of the Hospital and Health Survey of Cleveland, made at the request of the Cleveland Hospital Council, realized that detailed consideration of working conditions, of sanitation, of accident hazards, and of industrial health, was not possible in a brief survey. Inquiry by questionnaire, and by personal visit and conference, was therefore made to obtain only certain essential data regarding the medical organization which various industrial and mercantile establishments have developed for the care of the health of their employees; to estimate as accurately as might be possible, the efficiency of such organizations; and to offer an expression of opinion regarding the merits of certain features observed, and ways and means for remedying the more outstanding defects.

It was found that the quality of medical service rendered, in the establishments which have been considered as furnishing services, ranges between widely separated extremes. Apparently in only a few instances has it been found to be of a high order, judged by the best standards of industrial medicine and surgery as practiced in this country. It is creditable to note, however, that about one-half of the industrial workers of the city are, upon occasion, receiving some sort of medical attention in industrial plants besides the mere care of accidents and injuries required by the workman's compensation laws. No effort has been made by the Survey to appraise the quality of surgical work done by the industrial surgeons in the city, but there is much evidence that Cleveland is fortunate in having a group of interested, conscientious, and able surgeons giving their time especially to industrial cases. There are in Cleveland a few highly skilled industrial physicians, possessed of wide technical knowledge of their field, trained to consider the intricate interrelations of medicine and industry. As a rule, however, the men interested in industrial practice are frankly not concerned with anything except surgical conditions. The Survey recommends that industrial physicians be selected with regard to their professional and executive abilities, and that only the well qualified be chosen; that they be remunerated on a basis commensurate with the amount and character of services expected of them; that they be not permitted to combine with their official duties personal practice among the company personnel.

In regard to industrial nursing, it was found that a great many industrial nurses in Cleveland are registered, trained nurses. Some have entered this specialty because they sought the short hours and freedom of the industrial world, rather than the strain and uncertainty of private duty nursing. A small portion of industrial nurses of the city are not registered ones, and not graduates of hospital training schools.

There is, undoubtedly, a place in industrial medical service for practical nurses, and nurses' assistants, serving with or under the direction of competent medical or nursing authority. At present practical nurses are found in almost every instance, in charge of their own departments.

Not infrequently, the nurse gives far more service than is expected of her. She finds slight stimulus to better effort. If she writes a poor report, it serves as well as a good one, for it doubtless receives but a casual glance from an uninterested front office executive. Perhaps, as in one plant, she finds no official who considers it his duty to review that report, so she submits none. She may attempt to extend her usefulness, as in another Cleveland establishment, but the employees make such increased use of her department that she is retired to her own reservation and instructed to remain there. If the professional advice she offers is unsound, there is no one the wiser, certainly not the recipient of the advice.

Attention is also called to the practice of indiscriminate medication by nurses in certain industries, which are without medical supervision, which is not in accordance with modern standards of medical treatment, and is furthermore in direct violation of the Medical Practice Act of the State of Ohio. The Survey suggests that there is urgent need in Cleveland, as in other cities, for some means of carrying to the industrial nurses, the counsel and technical assistance which most need and many desire. The present Industrial Nurses' Club is presumably of real value in this connection, but its services are quite inadequate.

It is difficult to determine the exact number of firms whose nurses make visits to the homes of employees, but in only a small number of establishments is visiting nursing an accepted part of the medical department routine. Industry has occasionally made use of the Visiting Nurses' Association. A more extended utilization of such an established service might be advantageous. The Survey points out that certain types of visiting nursing are frequently a transparent subterfuge of employment departments to mask the real purpose of the visiting, and such service rarely fails to discredit the organization responsible for the activity, and to lower the respect of employees for the plant medical service. With good reason, employees resent the coming to their homes unasked, of women who wear uniforms of nurses, but who in purpose and in fact are employed by the company for espionage and not for health department work.

The suggestion is made that the standards employed by the Bureau of Labor Statistics of the U. S. Department of Labor are authoritative in regard to statistics on accident frequency.

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